

ANSWERING QUESTIONS ABOUT DESERT TORTOISES:



A GUIDE FOR PEOPLE WHO WORK WITH THE PUBLIC

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YOU, BY PROVIDING INFORMATION TO THE PUBLIC, CAN HELP IN MANY WAYS

This booklet was designed to help you help the tortoise. Using the material in the following chapters, you can tell people what the laws are, how to protect wild tortoises, where to take captive tortoises, how to adopt a captive tortoise, what to do if a tortoise is found, and how to avoid activities that harm tortoises.

The booklet is being distributed to government employees and other persons perceived by the general public to be knowledgeable about laws and protocols. It is intended for staff in city, county, state, and federal offices, as well as individuals in the business community. Examples of people who use the booklet are law enforcement officers, animal control officers, humane society staff, wildlife rescue experts, librarians, veterinarians, and officials of cities and towns in the desert. People in these positions can play a major role in saving tortoise populations, especially when dealing with the subject of captive tortoises.

HOW TO USE THE BOOKLET

When someone contacts you, scan the table of contents and leaf through the booklet to find the appropriate section. You can tell them the answer, or when the answer is quite technical, read the material directly to the interested party. If you have suggestions on improving this document, please write to: Desert Tortoise Council, P.O. Box 3141, Wrightwood, CA, 92397

WHY THE DESERT TORTOISE IS IN TROUBLE

Tortoise populations have been declining in many areas for decades because of collecting, vandalism, loss of habitat, and disease. Government agencies have recognized the problems facing this species for many years. For example, in 1939, 1961, 1972, and 1973 the California Fish and Game Commission developed special laws to protect wild tortoises from collecting, harassment, and shooting. In June of 1989 the California Fish and Game Commission listed the tortoise as a **threatened** species under the California Endangered Species Act, 50 years after the first protective legislation.

Many people ask why desert tortoise populations have declined. There is no single or primary cause. The situation is highly complex and varies from site to site and region to region. In most cases, there are many causes for declines. The following is a general list of typical problems:

- | | |
|-------------------------------------|--|
| ! illegal collecting | ! wildfire |
| ! vandalism | ! domestic and feral livestock grazing |
| ! disease | ! railroads, roads, highways, and freeways |
| ! persistent drought | ! recreation, including off-highway vehicles |
| ! release of captive tortoises | ! utility lines and corridors |
| ! attacks by domestic or feral dogs | ! exploration and development of |
| ! predation by ravens | geothermal, oil, and gas resources |
| ! agricultural development | ! mineral exploration and development |
| ! urban growth | ! military activities |
| ! landfills and illegal dumps | ! invasions of alien plants |

IMPORTANT LAWS AND REGULATIONS PROTECTING TORTOISES

The laws and regulations governing the desert tortoise differ by state, location within the state, and whether the desert tortoise is a captive or a wild animal. In most places, the shell-skeletal remains are also protected by law and can only be collected by permit. People can be fined for collecting, harassing, shooting, harming, killing, or purchasing a desert tortoise under existing state laws. The populations that are Federally-listed as threatened are similarly protected by the Federal Endangered Species Act of 1973, as amended. Table 1 provides a summary of the laws and regulations by government agency (Federal or State) and by the state where tortoises occur.

The sequence of events leading to Federal protection under the Endangered Species Act of 1973, as amended, is shown below:

- ! 1980 - the U.S. Fish and Wildlife Service listed the desert tortoise population on the Beaver Dam Slope in Utah as **threatened** and designated 35 square miles as Critical Habitat for this population.
- ! 1980 - the Bureau of Land Management listed the desert tortoise as a “**sensitive species.**”
- ! 1989 - the U.S. Fish and Wildlife Service listed desert tortoise populations occurring north and west of the Colorado River as **endangered** on an emergency basis for 240 days.
- ! 1990 - on April 2 the U.S. Fish and Wildlife Service issued a final decision or rule listing the desert tortoises north and west of the Colorado River as **threatened**. The threatened populations include tortoises living in California, southern Nevada, southwestern Utah, and in Arizona north of the Grand Canyon. For convenience, the U.S. Fish and Wildlife Service referred to these populations of the desert tortoise as the **Mojave population**. In fact, the Mojave population includes desert tortoises living in the Mojave and Colorado deserts.
- ! 1991 - the U.S. Fish and Wildlife Service published a finding that the desert tortoise population living in the Sonoran Desert of Arizona did not warrant listing under the Endangered Species Act of 1973, as amended. However, tortoises are protected under state law in Arizona.
- ! 1994 - the U.S. Fish and Wildlife Service designated approximately 6.4 million acres as critical habitat for the Mojave population of the desert tortoise (*Federal Register*, Vol. 59, No. 26, Feb. 8, 1994: 5820-5866). Critical habitat is defined as those habitat areas that contain physical or biological features essential to the conservation of the species, regardless of whether the species is present in those areas (Endangered species Act of 1973, as amended, Section 3).
- ! 1994 - the U.S. Fish and Wildlife Service published the *Desert Tortoise (Mojave Population) Recovery Plan*. The Plan was prepared by a national team of specialists called the Desert Tortoise Recovery Team. The Plan identifies threats to tortoises and their habitats and recommends actions to recover tortoise populations to the point where they can be delisted.

Table 1. Summary of Laws That Protect Desert Tortoises

	LAW / REGULATION	PROHIBITIONS	FINE / PENALTY
FEDERAL *Mojave population	Endangered Species Act (ESA) of 1973 (as amended), Sections 7, 9, and 10	Section 7 requires Federal agencies to carry out conservation programs and ensure their actions will not jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. Section 9 prohibits take**. Section 10 concerns habitat conservation planning.	Civil: up to \$25,000 Criminal: up to \$50,000 or up to one year in jail or both
COMMENTS: *Includes California, Nevada, Utah, and Arizona north of the Grand Canyon. **Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such activity" (ESA Sect. 3, pt 18).			
STATE LAWS			
Arizona	Arizona Revised Statutes. Title 17, Game and Fish. Chapter 3, Taking and Handling of Live Wildlife. Article 1, General Regs. Arizona Game and Fish Commission Order 43: Rules. Article 4. Live Wildlife Rules.	Prohibits import or transport into the state or sale, trade, or release within the state (17-306). Prohibits barter, sale, or offers for sale of any wildlife or parts of wildlife unlawfully taken during a closed season (17-309.D). Closed season. There is no open season on tortoise collection or hunting. "Restricted live wildlife" (R12-4-406); special license requirements (R12-4-409).	Class 2 misdemeanor: 4 months in jail and/or \$750. Class 6 felony: 1 yr in jail and up to \$150,000. Revocation/suspension of license.
COMMENTS: No State authority to regulate the modification of habitat. Desert tortoises possessed without a special license prior to Jan 1, 1988, may be possessed, transported, propagated, and given away (R12-4-407). Possession limit under this regulation is one desert tortoise per person.			
California The desert tortoise is the official State reptile.	California Endangered Species Act California Code of Regulations, Section 670.5(b)(4) of Title 14 State Laws - California Administrative Code, Title 14. 674. Permits to Possess Desert Tortoises (<i>Gopherus</i>)	Prohibiting the import or export of endangered species. No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts. . . Desert tortoises may be possessed only under the authority of a permit issued by the department. The department may issue a permit for the possession of a desert tortoise provided the tortoise was legally acquired and possessed prior to March 7, 1973.	The punishment for a violation of any of the provisions is a fine of not more than five thousand dollars (\$5,000) or imprisonment in the county jail for not more than one year, or both the fine and imprisonment.
COMMENTS: (a) The department may require an applicant for a permit to submit proof of the legal acquisition of any desert tortoise. (b) Applications for a tortoise permit shall be submitted on forms furnished by the department and may be filed with the department at any time. Upon approval of the application, the department shall provide a tag which shall be affixed to the tortoise as directed by the department. (c) No tortoise may be transferred to any other person without prior department approval. (d) Possession of a desert tortoise, regardless of subspecies, except under the authority of a department permit is in violation of this section. Untagged tortoises shall be seized by the department.			
Nevada	S. 501.110.1(d) Nevada Revised Statutes Sect. 503.080.2 Nevada Administrative Code	Unlawful to transport across state lines without the written consent of the Nevada Department of Wildlife	
COMMENTS: No State authority to regulate the modification of habitat			
Utah	Utah Administrative Code Title 23: Rule 657-3-25	Classified as Prohibited; prohibit collection, importation, transportation, possession, sale, transfer, or release of tortoises into the wild	3 rd Degree Felony or as low as a Class B misdemeanor depending on seriousness of violation
COMMENTS: No State authority to regulate the modification of habitat, except that Utah Admin. Code Title 23: Rule 657-3-8 states that a person may not disturb the den of any reptile			

LAWS REGARDING WILD AND CAPTIVE TORTOISES ARE DIFFERENT

Wild Tortoises: Desert tortoises must not be taken from the desert. Although laws differ slightly in the four states (Arizona, California, Nevada, and Utah) where tortoises occur, tortoises cannot be removed from the wild without Federal and/or State permits. Table 1 contains a summary of Federal and State laws or regulations. The Mojave desert tortoise is Federally-listed as a **threatened** species in the part of its geographic range occurring north and west of the Colorado River. Specifically, this definition includes tortoises living in the deserts of California, Nevada, Utah, and the portion of the desert that occurs north of the Grand Canyon - Colorado River in Arizona.

Captive Tortoises: In Arizona, California, and Nevada, legally-obtained captive tortoises and their progeny can continue to be kept as pets. In Utah, a person may possess a captive tortoise with a certificate of registration from the Utah Division of Wildlife Resources, under Rule 657-3-19, for scientific or educational use, if, in the opinion of the Division, the scientific or educational use is beneficial to wildlife or significantly benefits the general public without material detriment to wildlife. The Division rarely grants certificates of registration for tortoises to persons living in Washington or Kane Counties. Table 1 lists Federal and state laws and penalties.

ARIZONA: Pursuant to R12-4-407.1, desert tortoises legally held prior to January 1, 1988, may be possessed, transported, or propagated. Possession limit is one desert tortoise per person. Progeny of lawfully held desert tortoises may, for twenty-four months from date of hatching, be held in captivity in excess of the stated limit. Before or upon reaching twenty-four months of age, such progeny must be disposed of by gift to another person or as directed by the Arizona Game and Fish Department.

CALIFORNIA: Captive tortoises and their progeny can continue to be kept as pets. In 1972 and 1973 the California Fish and Game Commission passed special laws to permit people who had desert tortoises in their possession prior to March 1973 to keep those captives. In doing so, the Commission recognized that many people had held captives in captivity for decades or had offspring of captive tortoises. The Federal Endangered Species Act does not conflict with the California program for captives. Under the Act, captive tortoises and their progeny are to be maintained under normal husbandry practices.

Individuals with a legal captive must have the tortoise registered with the California Game and Fish Department. The progeny of legally acquired captives must also be registered. The Department issues stickers similar to car license plates stickers for each captive tortoise. There is no charge for registration. To obtain a registration form, send a stamped, self-addressed envelope to Ginger and Gary Wilfong, who are the registration agents for the California Department of Fish and Game at:

The Wilfongs, Adoption Program
California Turtle and Tortoise Club
P.O. Box 2005
Castro Valley, CA 94546-0005
(510) 886-2946

Under the California Department of Fish and Game Code, captive tortoises cannot be transferred from one person or household to another without the permission of the Department. To obtain permission to transfer guardianship of a captive, write to the Wilfongs, and they will assist in processing the papers. See also the list of local adoption representatives in Chapter 4.

NEVADA: Tortoise legally held prior to August 4, 1989, may continue to be held in captivity without a license or permit. Written permission must be obtained from the Division of Wildlife prior to transporting a desert tortoise across statelines. You must be a resident of Nevada to adopt a tortoise through the adoption programs. For information on adopting a tortoise or finding a home for an unwanted desert tortoise in Southern Nevada call (702) 383-TORT. For Northern Nevada, contact the Reno Tur-Toise Club at P.O. Box 8783, Reno, NV 89507, or call the Tortoise Adoption Hotline at (702) 972-8532.

UTAH: Under Rule 657-3-19 a person may possess a captive tortoise with a certificate of registration from the Utah Division of Wildlife Resources for scientific or educational use, if, in the opinion of the Division, the scientific or educational use is beneficial to wildlife or significantly benefits the general public without material detriment to wildlife. The Division rarely grants certificates of registration for tortoises to persons living in Washington or Kane counties.

CAPTIVE TORTOISES MUST NOT BE RELEASED TO THE WILD UNDER ANY CONDITION

Release of captive tortoises into the wild is a violation of the Federal Endangered Species Act. Now that the Mojave desert tortoise is Federally-listed as a threatened species, some owners of captives may not want to keep their pets. They may be concerned about having an unregistered tortoise or illegal captive. Some illegally held captives have actually been held in captivity for many years. In other cases owners of captives may be moving or the captive may be ill.

Even if the captive is not registered or has been in captivity illegally, it must not be returned to the wild. It must be placed in a government-approved adoption program (see previous section, as well as Chapter 4). You can help protect wild populations by ensuring that captives are not released into the wild. You may have to use your best public communication skills to do so.

One major cause of declines in wild tortoise populations is an Upper Respiratory Tract Disease. This disease, which experts believe may have been introduced into wild populations through releases of ill captives, is highly infectious to tortoises and is often fatal. The disease has swept through large parts of the desert and is contributing to extraordinarily high mortality rates. In some parts of the desert, 90% of the tortoises appear to have died between the late 1980's and mid 1990's from this disease.

Please emphasize to all those who request information (and to those who don't):

- The Upper Respiratory Tract Disease is caused by a very small bacteria (*Mycoplasma*). The bacteria was identified in 1992 as the cause of the disease by a team of veterinary research scientists at the University of Florida, supported in part by funds from the California Department of Fish and Game and the Bureau of Land Management.
- There is no evidence that the Upper Respiratory Tract Disease found in tortoises (symptoms include wet, runny, or stuffed-up nose, sniffles, lethargy) is harmful or contagious to people. The pathogen appears to be specific to tortoises and possibly to some other reptiles. Upper Respiratory Tract Disease has been well known in captive populations for decades and has not

harmed people.

- Many captives have Upper Respiratory Tract Disease and other diseases but appear to be healthy. A large portion of the captive population may be silent carriers of the disease. Veterinarians can only confirm whether a tortoise is infected by using special tests.
- Unlike wild tortoises, captives with the disease can be kept alive and healthy through good husbandry practices for many years. Such captives must be provided with adequate high quality food and water.
- Upper Respiratory Tract Disease is only one of several infectious diseases that can be introduced to wild tortoises if captives are released to the desert.

Therefore, captive tortoises must not be released into wild populations under any circumstances. An adoptive home can be found for almost any captive that is no longer wanted (see Chapter 4).

WHAT TO DO WHEN SOMEONE TAKES A TORTOISE FROM THE DESERT

Some of us know people who have taken a tortoise from the desert. *Depending upon which state you are in, if the tortoise was collected prior to prohibitions against collecting, or if it is the offspring of legally obtained captives, then the owner may possess it (with a special permit in California, Nevada, and Utah).* If, however, the collector has recently taken the tortoise from the desert, state and Federal laws have been violated and the collector is liable for prosecution. Table 2 contains the telephone numbers and addresses of state and Federal wildlife law enforcement agencies.

If the tortoise was collected within the last few days and if it was held in isolation (e.g., in a cardboard box, no other captive tortoises or turtles present, and not placed in a yard or with any pets), then experts with the U.S. Fish and Wildlife Service or state wildlife agency may decide that the tortoise can be returned to the location from which it was taken. You should not take the responsibility for making such a decision.

Such a determination must be made with care due to the potential to transmit the highly infectious Upper Respiratory Tract Disease and other infectious diseases. The decision on whether to return a wild tortoise to its home can only be made by designated tortoise experts. Biological expertise is essential. Tortoise experts in your area should be contacted at one of the addresses in Table 3 (page 10). The Federal government or any of the states may alter their official position on this topic as more information becomes available.

If a wild tortoise has been held in captivity for more than a few days, or in the presence of another turtle or tortoise, then it must not be returned to the wild for any reason. A wild tortoise held in captivity for even a few hours is likely to have been exposed to contagious diseases. Examples of exposure include contact with tortoises or turtles carrying diseases with no outward sign of illness, or contact with yards and pens that have housed sick tortoises, even years ago.

REMEMBER: Some diseases are highly infectious and fatal. Don't take a chance on exposing wild populations.

Table 2. Federal and State Wildlife Law Enforcement Addresses and Phone Numbers.

	STATE WILDLIFE AGENCY	U.S. FISH AND WILDLIFE SERVICE
ARIZONA	<p>Arizona Game and Fish Dept. Nongame Wildlife Section 2221 W. Greenway Rd. Phoenix, AZ 85023</p> <p>OPERATION GAME THIEF 1-800-352-0700</p>	<p>Special Agent U.S. Fish and Wildlife Service 26 N. McDonald Mesa, AZ 85021-4951</p> <p>(602) 835-8289</p>
CALIFORNIA	<p>California Department of Fish And Game</p> <p>CALTIP @ 1-800-952-5400</p>	<p>Senior Resident Agent U.S. Fish and Wildlife Service Division of Law Enforcement 370 Amapola Avenue, Suite 114 Torrance, CA 90501 (310) 328-1516</p>
NEVADA	<p>Nevada Division of Wildlife</p> <p>Las Vegas, NV 89158 (702) 486-5127</p> <p>1-800-993-3030</p>	<p>For Southern Nevada</p> <p>Special Agent U.S. Fish and Wildlife Service 600 Las Vegas Blvd. South, #455 Las Vegas, NV 89101 (702) 388-6380</p>
UTAH	<p>For Southern Utah:</p> <p>Utah Division of Wildlife Resources 1470 N. Airport Rd. P.O. Box 606 Cedar City, UT 84721-0606 (435) 865-6100</p>	<p>Special Agent U.S. Fish and Wildlife Service P.O. Box 12670 Ogden, UT 84412-2670</p> <p>Federal Building 324 25th Street, Room 1424 Ogden, UT 84401 (801) 625-5570</p>

CHAPTER 3 IF YOU FIND A TORTOISE WHILE IN THE DESERT . . .

WHAT TO DO IF YOU SEE A TORTOISE CROSSING THE ROAD

If you travel in the Sonoran, Mojave or Colorado deserts in spring, late summer, or fall, you might see tortoises crossing dirt or paved roads. Such tortoises are likely to be crushed by vehicles because they don't try to escape. When frightened, they withdraw into the shell and remain motionless and are likely to be hit by an oncoming car.

You must make some decisions. Is it likely that another vehicle will travel along the stretch of road and hit the tortoise? If you are on a remote, rarely-travelled track, then you may wish to drive around the tortoise, taking care not to injure it or damage any vegetation. If you are on a well-travelled road and there is a chance that another vehicle will travel along the stretch of road and hit the tortoise, then you should move it out of harms way.

Stop your car in a safe place along the roadside. Approach the tortoise from the end of the shell with the head. Note the direction the tortoise was heading. Carry it carefully across the road in the same direction, and take it no more than 150 feet into the desert. If possible, place the tortoise in the shade. Carry the tortoise upright, in its normal walking position, using both hands to hold it. Don't tip it from side to side or upside down. If the tortoise becomes frightened, it may empty its bladder as a defense mechanism. The loss of bladder fluids can place the tortoise under additional stress because tortoises store water in the bladder for use during the dry times of year.

WHAT TO DO IF A TORTOISE IS FOUND INJURED

Sometimes tortoises hit by vehicles are still alive. They may have been hit by a glancing blow, cracking the shell or receiving a similar minor injury. In the last 15 years, a few members of the public have contacted tortoise experts and biologists in federal and state agencies about an injured wild tortoise. In virtually all cases, the desert visitor has rescued an injured tortoise and wants to know what to do with it. Each case deserves special treatment. Immediately try to determine who currently has the tortoise, where the tortoise is located, where it was originally found, when it was rescued, and the signs of injury. A list of veterinarians willing to treat tortoises is in Appendix 2.

The injury should not and cannot be used as a means of obtaining a pet. For example, healthy three-legged tortoises must not be taken from the wild. Tortoises with only three legs can do quite well in the wild. Even two-legged tortoises have been known to survive!

Contact one of the agencies listed in Table 3 for guidance on the next step.

WHAT TO DO IF YOU FIND A TORTOISE IN A DESERT TOWN

- First, carefully evaluate the location. The location of the tortoise will give you an important clue as to whether it is likely to be a wild tortoise or a captive. Tortoises found on the fringes of residential areas in desert towns are very likely to be wild tortoises. They may wander in and out of unfenced yards and along streets on the edge of the desert.
- Second, without touching the tortoise check for signs of captivity, such as paint or holes in the shell.
- Third, if the tortoise shows no such signs of having been a captive, it should be treated as a wild tortoise. If you find such a tortoise, do not handle it unless it is in immediate danger of being killed. Let it proceed on its way. If it is in imminent danger of being killed, pick it up carefully, keeping it in its normal, walking position, and carry it a few hundred yards to the edge of the desert (EXCEPT IN UTAH). You will help to protect the tortoise by allowing it to remain a wild animal.

In Utah, if you find a tortoise that is in danger of being killed or injured in a desert city or town you should notify either the Utah Division of Wildlife Resources (Table 3), or, in Washington County, the Washington County Habitat Conservation Plan Administrator at (435) 634-5756.

Some people try to use "tameness" to determine whether the tortoise is wild or a captive. Tameness is not a good criterion because captives and wild tortoises both exhibit a wide variety of behaviors. For example, many wild tortoises exhibit lack of fear and curiosity, will walk up to a person, sniff, and even stop to rest by him/her. In contrast, some captives are very shy and will withdraw tightly into the shell when an observer approaches. If the tortoise is an obvious captive, follow the procedures described in Chapter 4.

Table 3. Agencies to Contact If You Find an Injured Desert Tortoise

	STATE WILDLIFE AGENCY	U.S. FISH AND WILDLIFE SERVICE	BUREAU OF LAND MANAGEMENT	OTHERS
ARIZONA	<p>Arizona Game and Fish Department, Nongame Branch 2221 W. Greenway Rd. Phoenix, AZ 85023</p> <p>(602) 548-3116</p>	<p>Field Supervisor, U.S. Fish and Wildlife Service 2321 W. Royal Palm Rd Suite 103 Phoenix, AZ 85021-4951</p> <p>(602) 640-2720</p>	<p>For Mohave County north of the Colorado River:</p> <p>St. George Field Office 345 E. Riverside Drive St. George, UT 84790</p> <p>(435) 688-3200</p>	<p>Arizona Game and Fish Department</p> <p>Adobe Mountain Wildlife Center 2221 W. Greenway Rd. Phoenix, AZ 85023</p> <p>(602) 789-3371</p>
CALIFORNIA	<p>California Department of Fish and Game</p> <p>Chino Hills Fish and Wildlife Base 4775 Bird Farm Road Chino, California 91709</p> <p>(909) 597-8235</p> <p>For Kern, Los Angeles, and San Bernardino counties, call (805) 285-5867</p> <p>For Riverside, Imperial, and San Diego counties, call (760) 251-4827</p>	<p>For Kern, San Bernardino, Los Angeles, and Inyo counties contact:</p> <p>Field Supervisor, U.S. Fish and Wildlife Service 2140 Eastman Avenue, Suite 100 Ventura, CA 93003</p> <p>(805) 644-1766</p> <p>For Riverside, Imperial, and San Diego counties contact:</p> <p>Field Supervisor, U.S. Fish and Wildlife Service 2730 Loker Avenue West Carlsbad, California 92008</p> <p>(619) 421-9440</p>	<p>Bureau of Land Management Desert District 6221 Box Springs Blvd. Riverside, CA 92507</p> <p>(909) 697-5200</p>	
NEVADA	<p>Nevada Division of Wildlife 4747 Vegas Drive Las Vegas, NV 89108</p> <p>(702) 383-TORT</p>	<p>For Southern Nevada:</p> <p>U.S. Fish and Wildlife Service 1500 N. Decatur Blvd., #1 Las Vegas, NV 89108</p> <p>(702) 646-3499</p>	<p>For Southern Nevada:</p> <p>Bureau of Land Management Las Vegas District 4765 W. Vegas Drive Las Vegas, NV 89108</p> <p>(702) 647-5000</p>	<p>Tortoise Hotline</p> <p>(702) 383-TORT</p> <p>Reno Tur-Toise Club</p> <p>(775) 972-7712</p>
UTAH	<p>Utah Division of Wildlife Resources 1470 N. Airport Rd. P.O. Box 606 Cedar City, UT 84721-0606</p> <p>(435) 865-6100</p> <p>St. George, UT 84790 (435) 688-1426</p>	<p>Field Supervisor, U.S. Fish and Wildlife Service 145 E. 1300 South, Suite 404 Salt Lake City, UT 84115</p> <p>(801) 524-5001</p>	<p>For Washington County:</p> <p>Bureau of Land Management St. George Field Office 345 E. Riverside Drive St. George, UT 84790</p> <p>(435) 688-3200</p>	<p>For Washington County:</p> <p>Washington County Habitat Conservation Plan Administrator 197 E. Tabernacle St. George, UT 84770</p> <p>(435) 634-5756 or (435) 634-5759</p>

HOW TO PROTECT TORTOISES WHEN YOU VISIT THE DESERT

When you are hiking, camping, or having a picnic in the desert, you might see tortoises. The list of DO'S and DON'TS will increase enjoyment of the desert and at the same time protect the tortoise.

DO'S

- Enjoy the tortoise at a distance with binoculars, respecting that it is a wild animal. By keeping a distance, you will reduce stress to the tortoise. When a tortoise is frightened by an approaching person, it may release the contents of its bladder. Tortoises store water in the bladder and can reabsorb it during dry seasons. The loss of water can place the tortoise under unnecessary stress or contribute to early death.
- If you remain still and quiet, the tortoise may approach you and rest in your shade.
- Check under your car before driving away. Often a tortoise will seek the shade of a car and be next to the wheels.
- Be careful around tortoise burrows. The roof is very thin near the opening and it is possible for you to trample the burrow, tortoise, or any nests.
- During summer and fall thunder showers, drive slowly on desert roads, especially the dirt and paved roads with little traffic. During rain storms, tortoises can be quite active and come to roads to drink the pooled water.
- Follow the rules for the area: drive only on designated roads, camp in appropriate areas, be careful with fire, and take your trash out with you.
- Report violations of law to the appropriate authorities.

DON'T'S

- Please do not handle the tortoises. State and Federal laws prohibit touching, handling or any type of harassment. Handling may also harm the tortoises because they may release the contents of their bladders.
- Do not move close to photograph it with your camera, but instead use a telephoto lens.
- Do not try to "pose" a tortoise for a picture. If you approach too closely, you might frighten or stress the tortoise.
- Do not pull tortoises out of burrows or cover sites.
- Do not drive off-road, unless you are in a designated open area.
- Do not let your dogs run unsupervised in desert tortoise habitat.
- Do not damage or remove desert vegetation or other features.
- Do not release any tortoises into the desert.

CAPTIVE TORTOISES MAY BE POSSESSED LEGALLY

Please see Chapter 2 for details about laws regarding possession of captive tortoises, registration with the State through an Adoption Program, and transfer of tortoises from one owner or household to another.

CAPTIVE TORTOISES MUST NOT BE RELEASED TO THE WILD

Frequently, people who possess captive tortoises contact government agencies and ask where they can release their pet. Please tell them that there are several reasons why domesticated or pet tortoises should not be returned to the desert:

○ First, release of captive tortoises is a violation of the Federal Endangered Species Act under the section on "take", which includes capturing, pursuing, shooting, harming and harassing. Released pets are likely to have harmful effects on the wild populations. Pet tortoises often carry diseases and parasites which may not be apparent with casual inspections. These diseases can and already have infected wild populations. A prime example is the appearance of the highly contagious and usually fatal Upper Respiratory Tract Disease at the Desert Tortoise Natural Area and elsewhere in the Mojave Desert in the late 1980's. This disease, which is caused by a very small bacteria called a Mycoplasma, is killing thousands of wild tortoises. Experts think that Mycoplasma may have been transmitted to wild populations by unauthorized releases of ill captive tortoises.

○ Second, recent research indicates that several genetically distinct tortoise populations exist. A tortoise from one genetically distinct unit should not be mixed with tortoise populations from another unit. Often the pet owner does not know the source of the captive tortoise.

○ Third, studies indicate that domesticated tortoises do not have a high survival rate, probably because they have forgotten the intricate details of living in the harsh desert environment. Pets do not dig burrows as readily or as well as wild tortoises. Pets also may not remember how to forage.

○ Fourth, release of captive tortoises increases competition and stress for the existing wild tortoises. Wild tortoise populations are already threatened with loss and deterioration of habitat. The amount of undisturbed desert decreases yearly, usurped by construction, development, and other human pressures. The quality of remaining habitat is also decreasing because of the many demands for land use: mining, grazing, off-road vehicle recreation, and energy development. Deserts recover very slowly from disturbance. As a result, habitats support progressively fewer tortoises.

○ Fifth, released pets can harm wild tortoises by interfering with the social structure. Wild tortoises have well-defined activity areas and often defend territories and burrows. The introduction of new tortoises to an area can stimulate fights for burrows, food, and other resources.

WHAT TO DO IF YOU FIND A TORTOISE IN A NON-DESERT CITY OR TOWN

Most tortoises found in towns and cities away from the desert have been captives for many years, often decades. For example, over 60,000 captive tortoises live in residential areas in California such as the greater Los Angeles area, the vicinity of San Diego, and the Central Valley. There are

also captives in Arizona and Nevada. Sometimes they have been "owned" by many people. If the tortoise has a hole drilled in the shell or numbers or colors painted on it, it probably has been a captive for some time. In California, if it has an official Department of Fish and Game sticker with a registration number, Fish and Game officials can locate the owners through the registration system. Even if there are no obvious signs of captivity, you must assume that the tortoise is an escaped captive.

Tortoises that have escaped their owners and are wandering the streets of your town are likely to be crushed by vehicles or killed by dogs. Please pick up the tortoise and call an appropriate group or agency.

ARIZONA

Call the Arizona Game and Fish Department tortoise program at (602) 548-3116, or contact the nearest Regional Office.

Region 1	HC 66, Box 57201, Pinetop , AZ 85935	(520) 367-4281
Region 2	3500 South Lake Mary Road, Flagstaff , AZ 86001	(520) 774-5045
Region 3	5325 N. Stockton Hill Road, Kingman , AZ 86401	(520) 692-7700
Region 4	9140 East County 10½ Street, Yuma , AZ 85365	(520) 342-0091
Region 5	555 N. Greasewood Road, Tucson , AZ 85745	(520) 628-5376
Region 6	7200 E. University, Mesa , AZ 85207	(602) 981-9400
Adobe Mtn.	2221 W. Greenway Road, Phoenix , AZ 85023-4399	(602) 582-9806

CALIFORNIA

In California, call the nearest California Turtle and Tortoise Club (see page 15). If the tortoise possesses an official registration number, the Adoption Chairman can determine the owner. If the tortoise has no sticker and the owner cannot be located, the tortoise will be taken by a representative of the California Turtle and Tortoise Club. A new home will be found for the tortoise and it will be officially registered with the State. See the next section, Adopting a Captive Tortoise for a Pet, for information on the people in charge of Adoptions.

NEVADA

In Southern Nevada call the Tortoise Hotline at (702) 383-TORT. In Northern Nevada contact the Reno Tur-Toise Club at (702) 972-7712.

UTAH

Contact the nearest Utah Division of Wildlife Resources office.

Salt Lake City	1596 West North Temple, Salt Lake City , UT 84116	(801) 538-4700
Central Region	1115 North Main Street, Springville , UT 84663	(801) 489-5678
Northern Region	515 East 5300 South, Odgen , UT 84405	(801) 476-2740
Southern Region	1470 N. Airport Rd., Cedar City , UT 84721-0606	(435) 865-6100
	St. George , UT 84790	(435) 688-1426
Northeastern Region	152 East 100 North, Vernal , UT 84078	(435) 789-3103
Southeastern Region	455 West Railroad Avenue, Price , UT 84501	(435) 636-0260

ADOPTING A CAPTIVE TORTOISE FOR A PET

It is illegal to remove a desert tortoise from the wild in any state. Captives are available for adoption. Procedures vary from state to state.

ARIZONA

Residents of Arizona are allowed to possess one captive desert tortoise. Should that captive have young, those young must be disposed of by gift within 24 months. There are two ways to acquire a captive in Arizona: as a gift from someone who has a captive or from the Arizona Game and Fish Department Adobe Mountain Wildlife Center.

The procedure for adoption from Adobe Mountain Wildlife Center is simple: Talk to the adoption coordinator at (602) 582-9806 on Mondays or Fridays, prepare the yard, fill out the application and mail to Adobe Mountain Wildlife Center, and an adoption will follow an inspection that results in approval.

The Adobe Mountain Wildlife Center will only adopt one tortoise to a yard because of the Upper Respiratory Tract Disease. There are specific requirements for the tortoise enclosure. Gates must have secure self-closing mechanisms and a barrier 18 inches high across the opening, while fences must be extended at least one foot underground. Pools and spas must be securely fenced, and dogs and other animals must be kept separately from the tortoise.

The total minimum area must be at least 12 by 12 feet, with a grass section of at least 6 by 6 feet. The tortoise must have a permanent source of shade, sun, water, and dry ground. A hibernation den must be constructed above or below ground. No poisonous plants, dry fertilizer, snail bait, weed or pest sprays or systemic poisons may be used in the yard.

The Adobe Mountain Wildlife Center directs that all desert tortoises that cannot be cared for be returned to the Center for adoption to a qualified adoptee. **DO NOT RELEASE A DESERT TORTOISE TO THE WILD OR TO THE CITY.** You may propose that an interested friend be the new adopter; they would then be required to go through the adoption process. Should the captive desert tortoise escape, the owner would not be eligible for another.

You can contact Adobe Mountain Wildlife Center at the address on page 13.

CALIFORNIA

In 1974 the California Department of Fish and Game established cooperative programs with several organizations to facilitate the handling of captive tortoises that people no longer want. The program includes the California Turtle and Tortoise Club, Tortoise Education Adoption Media, and several individuals. At no cost to the Department, members of these organizations provide temporary homes for the tortoises before finding suitable people to "adopt" them. They also provide quarterly reports of their adoption activities to the Department. These private organizations have been instrumental in developing methods for breeding and rearing captive tortoises. They are experts in tortoise husbandry. They maintain lists of individuals who want to adopt desert tortoises and can provide a safe home.

When you provide names of people in charge of local Adoption Programs to the public, select a

person near to the person making the request. Be certain to provide more than one name in case the Adoption Chairperson is not available, has changed phone numbers, or has moved. If no Adoption Chairperson is listed, give the name of an officer.

Cen-Val Chapter P.O. Box 727 Clovis, CA 93613-0727	President: Janet Boothe V. Pres: Darlene Ragsdale Secretary: Wanda Casey	(209) 292-5390 (559) 846-9153 (559) 275-3439
Foothill Chapter P.O. Box 51002 Pasadena, CA 91115-1002	President: Diane Huwaldt V. Pres: Joan Hemrick Adoptions: Linda Crawford	(626) 292-1494 (626) 339-6204 (626) 836-0399
High Desert Chapter P.O. Box 163 Victorville, CA 92392	President: Steve Blech Secretary: Lisa Avila Adoptions: Judy Rogers	(760) 242-5033 (760) 247-4117 (760) 243-4518
Inland Empire Chapter P.O. Box 2371 San Bernardino, CA 92406	President: Robert Laughlin V. Pres: Madeline Dexter Adoptions: Lynda Misiak	(909) 674-3453 (909) 885-5187 (909) 627-0424
Joshua Tree Chapter P.O. Box 1099 Joshua Tree, CA 92252	President: Rae Packard Sec./Treas: Richard Plock, Ph.D Adoptions: William Comparsi	(760) 369-1225 (760) 365-4769 (760) 369-1235
Kern County Branch P.O. Box 81772 Bakersfield, CA 93380-1772	President: Dave Vaughan V. Pres: Linda Moore Adoptions: Katheryn Elconin	(805) 746-6419 (805) 871-0594 (760) 379-1822
Low Desert Chapter P.O. Box 4156 Palm Desert, CA 92261	President: Richard Plock, Ph.D V Pres: Kim Auckland Adoptions: Yvonne Sessums	(760) 365-4769 (760) 360-3809 (760) 564-3877
Orange County Chapter P.O. Box 11124 Santa Ana, CA 92711	President: Dean Shoffeitt V. Pres: Stefan Rhoads Adoptions: P. Rhoads	(949) 837-4338 (714) 731-7561 (714) 731-7561
Santa Barbara-Ventura Chapter P.O. Box 60745 Santa Barbara, CA 93160	President: Jim Carroll V. Pres: Bill Chamlee Adoptions: Jeanie Vaughan	(805) 524-4032 (805) 647-6481 (805) 969-5128
TOOSLO San Luis Obispo Chapter P.O. Box 14222 San Luis Obispo, CA 93406	President: Bob Thomas V. Pres: Denise McClure Adoptions: Bob Thomas	(805) 481-5222 (805) 466-4071 (805) 481-5222
Valley Chapter P.O. Box 2896 Canoga Park, CA 91396	President: Martin Carman V. Pres: Diane Levine Adoptions: Jan Gordon	(818) 704-7780 (818) 899-7223 (805) 379-4091
Westchester Chapter P.O. Box 90252 Los Angeles, CA 90009	President: Diane Brouhard V. Pres: Scott Solar Adoptions: Diane Brouhard	(310) 838-8405 (909) 627-3274 (310) 838-8405

Turtle and Tortoise Care Society
P.O. Box 15965
Long Beach, CA 90630

President: Betsy McCormick
Secretary: Ralph Hoekstra
Adoptions: Betty Caldarelli

(714) 529-1473
(714) 962-0624
(562) 863-2672

NEVADA

In Northern Nevada, contact:

Reno Tur-Toise Club
PO Box 8783
Reno, NV 89507

Tortoise Hotline (775) 972-8532

In Southern Nevada, contact:

The Tortoise Group

(702) 739-7113 or
(702) 383-TORT

UTAH

A person may possess a captive tortoise with a certificate of registration from the Utah Division of Wildlife Resources, under Rule 657-3-19, for scientific or educational use, if, in the opinion of the Division, the scientific or educational use is beneficial to wildlife or significantly benefits the general public without material detriment to wildlife. The Division rarely grants certificates of registration for tortoises to persons living in Washington or Kane Counties.

Contact: Utah Division of Wildlife Resources/Wildlife Registration Office
1596 West North Temple
Salt Lake City, UT 84116-3195
(801) 538-4887

TORTOISE HUSBANDRY

You should direct people who ask for information about tortoise husbandry to contact the nearest chapter of an organization such as the National Turtle and Tortoise Society of Phoenix, California Turtle and Tortoise Club, Reno Tur-Toise Club, or the Tortoise Group in Nevada. Members have expertise on such subjects as backyard plants that are poisonous to tortoises; plants, grasses, and vegetables appropriate for feeding the captives; and information on how to care for the captive during hibernation. See Chapter 7 for more information on organizations with expertise on tortoises.

ILL OR INJURED CAPTIVE TORTOISES

If you receive calls or questions about ill or injured captive tortoises, or ill or injured tortoises found in cities, you should refer the person to a veterinarian (see Appendix 2). Very few veterinarians are interested in or have expertise in treating tortoises. Tortoises are difficult to coax from their shells and often present very little evidence of disease or injury unless in serious condition, so treatment can be difficult and expensive.

RESPONSES TO THE MOST FREQUENTLY ASKED QUESTIONS

prepared by Kristin H. Berry¹

1. What is the difference between a turtle and a tortoise?

In the United States the following distinction is made between the terms turtle and tortoise:

A tortoise is a land dwelling turtle with high domed shell and columnar, elephant-shaped hind legs. Tortoises go to water only to drink or bathe.

In contrast, the word "turtle" is used for other turtles: pond turtles, river turtles, box turtles, and sea turtles.

2. How many different kinds of tortoises occur in North America?

Three species of tortoises occur in the United States and a fourth is found in Mexico. The desert tortoise (*Gopherus [Xerobates] agassizii*) is found in the Mojave and Colorado/Sonoran deserts of California, southern Nevada, Arizona, southwestern Utah, and in Mexico. The Texas tortoise (*Gopherus [Xerobates] berlandieri*) occurs in southern Texas and northeastern Mexico. Some can be found in California, where they were sold in the past for pets. The third U.S. species is the gopher or Florida tortoise (*Gopherus polyphemus*), which lives in southwestern South Carolina, Florida, Georgia, Alabama, Mississippi, Louisiana, and extreme southeastern Texas. The fourth species is the bolson tortoise (*Gopherus flavomarginatus*), which is found in a very small area in Chihuahua and Durango, Mexico.

3. What is the habitat of the desert tortoise in the southwestern U.S.?

Tortoises occupy a wide variety of habitats in the United States. Two generalizations can be made. Tortoises living north and west of the Colorado River-Grand Canyon complex (California, southern Nevada, southwestern Utah, and extreme northern Arizona) generally occur in valleys, flat areas, fans, bajadas and washes. These tortoises live in the Mojave and Colorado deserts and are generally found below 4,000 feet in tree yucca (Joshua tree and Mojave yucca) communities, creosote bush and saltbush scrub habitats, and in some ocotillo-creosote habitats. They occupy a wide variety of soil types, ranging from sand dunes to rocky hillsides, and from caliche caves in washes to sandy soils and desert pavements. The tortoise must have suitable soils and terrain for constructing a burrow and must have adequate annual and perennial plants in the spring and/or summer for forage.

Tortoises living in the Sonoran Desert of Arizona occupy entirely different habitats. They are primarily found on the steep, rocky slopes of hillsides. The slopes may be covered with granitic or volcanic boulders and are often covered with dense vegetation. The palo verde-saguaro cactus is the most frequently occupied habitat, although some tortoises are found in oak woodlands and stands of heavy bunch grass.

¹ Prepared for the Desert Tortoise Preserve Committee, Inc. and used with permission.

4. When can one see tortoises in the deserts? When are they active?

In general, tortoises hibernate from October through February and are underground in burrows during that time. On warm, sunny days an occasional animal may be found near the mouth of its burrow in late fall or winter.

In The Mojave and Colorado deserts, the prime activity period is late winter and spring, from mid to late March through May. In early spring, tortoises are out from mid-morning to mid-afternoon, during the warm part of the day. As air temperatures rise, tortoises emerge from burrows earlier and retreat earlier. By May, tortoises may be out by 6:00 a.m. and back in burrows by 9:00 a.m. In late spring, tortoises may also be active in late afternoon.

After May, when daytime air and soil temperatures are over 90 degrees Fahrenheit and the food supplies of herbaceous plants and grasses have dried, a large percentage of tortoises become inactive and remain underground in burrows. Some will emerge a few times a week or once every two or three weeks, especially in early morning or late afternoon. Others will not come out of burrows until summer thundershowers trigger a brief flurry of above-ground activity. With summer rains, the tortoises will emerge from burrows to drink, travel, and eat.

In the Sonoran Desert, tortoises may be more active in summer and early fall than in late winter and spring. The tortoises respond to summer rainstorms, emerging from their burrows and eating the plants that germinate and grow in response to the summer rains.

5. What is hibernation and what do tortoises do when they hibernate?

For a tortoise, hibernation is a period of inactivity, generally below ground in a burrow or den. The body temperature is lowered close to that of the air temperature in the burrow, about 40 to 60 degrees Fahrenheit. The heart rate, respiration rate, and all bodily processes are slowed.

6. What do tortoises eat in the wild?

Tortoises are selective in choice of foods. Food preferences depend on locality and availability of the food items. In general, tortoises feed on herbaceous perennial (perennial plants live for more than one year) and annual wildflowers, such as wishbone bushes, lotus, loco weeds, spurges, blazing stars, lupines, Indian wheat, forget-me-nots, desert dandelions, gillias, phacelias, coreopsis, and many other species. They also eat annual and perennial grasses and fresh pads and buds of some species of cactus. They do not eat shrubs such as creosote bush and burro bush.

Consumption of dried plants is dependent on the tortoise's state of hydration. Tortoises will eat dried annual plants and grasses throughout late spring and into summer and fall, if, for example, they have recently consumed rain water.

7. Do tortoises drink water in the wild?

Yes. Tortoises drink free water where it collects in pools near rocks or in depressions. Tortoises will dig depressions to collect the water, and such depressions can often be seen on areas of desert pavement.

Tortoises can store water in their bladders, where it can be reabsorbed. During spring, summer, and fall rains, tortoises will drink and "freshen" the water stored in their bladders. Bladder water

varies from colorless to dark brown. Fresh water is clear and colorless; water that has been stored for some time is dark and concentrated.

8. When do females lay eggs and where?

In the wild, females usually lay one or more clutches of 1 to 12 eggs between mid-April and mid-July. The size of the clutch depends on the size of the female, with small females producing smaller clutches than the larger females. Clutch size and numbers of clutches produced also can depend on the food supply--how much food the tortoise has been able to obtain during the year or two prior to the time the clutch is deposited. Females dig the nests with the hind legs and drop the eggs into the nest, placing them with their hind legs and covering them carefully. The location of an undisturbed nest cannot easily be detected by humans.

Nests are most often associated with the female's burrows. The nest may be in the burrow mound, the mouth of the burrow, or deep inside the tunnel.

9. How much time is required for eggs to hatch?

The eggs, which are the shape and size of ping pong balls, may hatch in 70 to 120 days. The timing depends on the location of the nest and how much warmth it receives, among other factors. Some clutches may over-winter underground and hatch in the spring.

10. How large is the largest known desert tortoise? How are tortoises measured?

The largest known captive desert tortoise in California was a male about 15 inches in length. Known as "Max", the tortoise became the property of the California Department of Fish and Game in the 1970's. Max finally died and has been freeze-dried for exhibits. An even larger captive tortoise is a 17.3-inch male, who lives with his proud owners in Las Vegas.

Two wild desert tortoises vie for record sizes: a 14.5-inch male on the Desert Tortoise Natural Area, and a 15-inch female in Lucerne Valley.

Tortoises are measured with calipers, instruments consisting of a pair of movable curved legs fastened together at one end and used to measure the length of the shell. One end of the caliper is placed at the edge of the carapace (upper shell) immediately above the head and the other end is placed on the carapace edge above the tail. The straight line distance is considered the length of the shell or carapace at the midline of the body.

11. What are tortoise burrows like?

Tortoise burrows vary considerably in length and type. The style of burrow appears to be dependent upon the region, soil type, and vegetation in which it is found. For example burrows in the eastern Mojave Desert of Utah are of two basic types: deep winter dens in caliche caves in washes, some of which are 30 feet in length; and shallower summer burrows three to six feet in length in the flat areas. In the western Mojave Desert, tortoises have a variety of burrows. They use burrows about 2.5 to 10 feet in length for summer estivation and winter hibernation. They may also use shallower burrows or pallets that just barely cover the shell in spring, summer, and fall also. These temporary burrows or pallets can be fragile and may be used for shelter for a few days while a tortoise is foraging in a particular area. A temporary burrow usually lasts from a few weeks to a season and disintegrates.

In the Sonoran Desert, tortoises frequently use rocks and boulders as sites for burrows or shelter. They may excavate a space beneath a boulder or squeeze into rock crevices.

Each tortoise usually has more than one burrow. The number of burrows the tortoise uses may depend on age and sex, as well as on the season. The burrow is usually the size and shape of the tortoise--half moon in shape and flat on the bottom. Small tortoises have small burrows and large tortoises have large burrows.

12. Why are tortoise burrows important?

The tortoise burrow provides protection from the extremes of heat, cold, lack of moisture, and too much moisture. The burrow is especially important because it provides a cool place for the tortoise during the dry hot days in late spring and summer when water and food are unavailable and a relatively "warm" site for winter hibernation. The tortoise spends most of its life in the burrow.

Burrows also serve as protection from predators, such as common ravens, bobcats, coyotes, kit foxes, golden eagles, and roadrunners.

13. Do tortoises migrate?

Migration refers to movement to a particular place for a particular purpose, such as feeding or breeding, and then return to the former site. Migration is not an appropriate term to use for tortoise movements. Each tortoise has a home range or activity area. A home range is the area in which a tortoise travels, feeds, sleeps, courts, and has its burrows. This is the area with which the tortoise is familiar. In general, large tortoises have large home ranges and small tortoises have small home ranges. Females are more sedentary than males, so they probably have smaller home ranges. Large males are known to occupy home ranges over 0.75 square mile.

Tortoises appear to have a good sense of compass direction. They are also very familiar with local landmarks. They can travel to find their burrows in a straight line. They also know locations of other tortoises (e.g., males know the location of females), drinking depressions, mineral licks (sites with deposits of calcium, sodium, magnesium and other salts), and particular food sources.

Some people, upon seeing tortoises cross roads in spring, think that tortoises are "migrating". Actually the tortoises are merely living in close proximity to the highways and roads and will travel across them during the course of moving about the home range.

14. When do tortoises court and mate?

Male tortoises generally court female tortoises whenever the opportunity presents itself, e.g., in spring, summer, or fall. There does not appear to be a well defined "mating season". However, the reproductive organs of male tortoises are active (have motile sperm) in late summer and fall.

Male tortoises may court and mount the females, but not actually copulate. Don't assume that mating is occurring because you see a male mounted on a female.

15. How does one distinguish a male from a female tortoise?

Sex is difficult to determine until the tortoise is about seven inches in carapace length. The shape of the shell differs between male and female adults. The shell is composed of a domed roof or back called the carapace, and a flattened under portion called the plastron. The portion of the plastron immediately beneath the extended head and neck is called the gular horn. Male tortoises have a longer and up curved gular horn, a concave plastron (a dish-shaped depression on the underside of the shell near the tail), a longer tail, and chin glands or knobs on the chin. Females may have longer toenails for digging nests, a small gular horn, a flat plastron, and no obvious chin glands.

16. What predators eat tortoises?

The type of predator varies depending on the age and size of the tortoise. There are egg predators such as the gila monster, kit fox, coyote, and badger. Predators of juveniles include ravens, roadrunners, some snakes, kit foxes, bobcats, badgers, coyotes, and probably the spotted skunk.

The larger the tortoise the more likely it will be able to resist predation. Large tortoises may be eaten by kit foxes, badgers, bobcats, coyotes, and golden eagles. The large mammalian predators are not likely to eat tortoises unless other food sources, such as rabbits and rodents, are in short supply. Coyotes and kit foxes may dig tortoises out of their burrows to eat. These predators can eat the tortoise without breaking open the shell.

CHAPTER 6 GOVERNMENT AGENCIES WITH RESPONSIBILITIES FOR PROTECTING AND MANAGING DESERT TORTOISES AND THEIR HABITATS

Four State wildlife agencies and three Federal government agencies have the primary responsibilities for protecting and managing desert tortoise populations and their habitats: the Arizona Game and Fish Department, the California Department of Fish and Game, the Nevada Division of Wildlife, the Utah Division of Wildlife Resources, the Bureau of Land Management, the National Park Service, and the U.S. Fish and Wildlife Service. There are several other agencies that manage desert tortoise habitats, including the Department of Defense, the U.S. Forest Service, and California Energy Commission, but their roles are not as extensive. The U.S. Geological Survey is responsible for conducting long-term monitoring and research into desert tortoise management and ecology.

In addition to these agencies, Clark County, Nevada, and Washington County, Utah, have implemented Habitat Conservation Plans in cooperation with the U.S. Fish and Wildlife Service under section 10 of the Endangered Species Act. The following information is a very brief outline of the major functions of some of these agencies.

ARIZONA GAME AND FISH DEPARTMENT

The Arizona Game and Fish Department (AGFD) manages desert tortoise populations and is actively involved in management and research. The removal of tortoises from the wild has been prohibited since 1988. AGFD offers guidelines for handling desert tortoises encountered on development projects to reduce potential impacts on tortoise populations. The AGFD's Adobe Mountain Wildlife Center manages an adoption program for legally held tortoises including those propagated in captivity (Table 1). The AGFD and the U.S. Fish and Wildlife Service co-chair the Arizona Interagency Desert Tortoise Team (AIDTT), which serves as a forum for discussion of desert tortoise issues, with the specific objectives of conducting and coordinating research and management efforts and exchanging information. The AIDTT recently published the *Management Plan for the Sonoran Desert Population of the Desert Tortoise in Arizona*. Take a look at the Sonoran Desert Tortoise Management Plan at: azwww.az.blm.gov/dt/dt.htm

Since 1990 the AGFD has coordinated annual desert tortoise monitoring efforts in cooperation with the U.S. Bureau of Land Management and U.S. Fish and Wildlife Service. The AGFD Heritage Fund has supported a wide variety of internal and external research ranging from population surveys to genetic, health, and other ecological studies. Current projects include continued population monitoring and studies of reproductive ecology, growth, and diet.

Visit the AGFD website at: http://www.gf.state.az.us/frames/fishwild/idx_papr.htm

CALIFORNIA DEPARTMENT OF FISH AND GAME

The Department of Fish and Game (CDFG) has a long history of protecting desert tortoises. State laws have prohibited the purchase or sale of the species since 1939; shooting or harming tortoises has been against the law since 1961. In the last decade, wardens have successfully prosecuted cases involving illegal take, possession and transport of tortoises under the California Endangered Species Act and Fish and Game Codes (see page 7 in Chapter 2 for information on law enforcement). Special legislation allows possession of captive tortoises by permit under certain circumstances (Appendix 1). The CDFG implements the permit process for captive tortoises and

oversees the Adoption Program with the California Turtle and Tortoise Club (Chapter 4).

The CDFG provides funding for studies and research on the tortoise through the Endangered Species Tax Check-off Program and other special funding sources. For example, during the last few years CDFG transferred funds to experts in the Bureau of Land Management for research on upper respiratory tract disease, raven predation, growth rates in tortoise populations, and differences in shell shape between populations. Working with the Nature Conservancy and the Desert Tortoise Preserve Committee, CDFG recently acquired substantial acreage within the Desert Tortoise Research Natural Area. The agency also established the West Mojave Ecological Reserve and Fremont Valley Ecological Reserve outside the Desert Tortoise Research Natural Area.

Under provisions in the California Environmental Quality Act and the Fish and Game Code, CDFG can issue management agreements for development or construction in tortoise habitat. Effects of the developments on tortoises are often offset through land acquisition, construction of protective fences, and other actions that minimize or eliminate threats to tortoises and their habitats. CDFG works closely with federal, county, and other state agencies to conserve, protect, and help recover desert tortoise populations. Individuals and companies wishing to undertake development or construction projects on public or private lands with tortoise habitat should contact the California Department of Fish and Game at (909) 597-8235.

UTAH DIVISION OF WILDLIFE RESOURCES

The Utah Division of Wildlife Resources (UDWR) is actively involved in the protection and management of desert tortoise populations in extreme southwest Utah, including the Red Cliffs Desert Reserve and the Beaver Dam Slope. The desert tortoise is fully protected in the State of Utah and is listed as a State Endangered Species. The removal of tortoises from the wild is strictly prohibited. Possession of a captive desert tortoise is prohibited without a Certificate of Registration issued by UDWR. Conservation Officers are actively involved in the enforcement of State law regarding native species. Several cases involving the possession of desert tortoises have been successfully prosecuted since the species was listed under the Endangered Species Act in 1990.

Tortoise Recovery efforts are directed by the *Desert Tortoise (Mojave Population) Recovery Plan* and the *Washington County Habitat Conservation Plan* (HCP). Since 1997 the UDWR has developed and implemented a long-term monitoring program in the Red Cliffs Desert Reserve to determine desert tortoise regional population density trends, as directed by the Washington County HCP. In addition, UDWR actively monitors incidental take related to the Habitat Conservation Plan. The Division of Wildlife Resources has also been cooperatively involved in nutrition and diet selection, health assessment, reproduction, mark-recapture, and growth rate studies since the early 1980's.

U.S. BUREAU OF LAND MANAGEMENT

The U.S. Bureau of Land Management (BLM) manages several million acres of public lands with desert tortoise habitat in the deserts of Arizona, California, Nevada, and Utah. Since the 1970's BLM experts on the desert tortoise have held a leadership role in designing and carrying out studies, research and monitoring of the species. Much of that expertise moved from BLM into the U.S. Geological Survey as the Biological Resources Division.

In 1973 the BLM initiated a long-term process to establish and protect tortoise populations in the

western Mojave Desert at the Desert Tortoise Research Natural Area. The 38-square mile preserve was formally designated in 1980. In 1980 the BLM also designated the Chuckwalla Bench Area of Critical Environmental Concern in the southeastern Colorado Desert, another area with a nationally significant tortoise population. In cooperation with the Desert Tortoise Preserve Committee, The Nature Conservancy, and other groups, the BLM has established a very successful land acquisition program for both areas. Law enforcement officers--called Rangers--contribute to protection of the tortoises and their habitats at the two protected areas, as well as throughout the deserts.

The BLM in Utah manages the Woodbury Desert Study Area on the Beaver Dam Slope, where the original ecological study of desert tortoises was conducted in the 1930's and 1940's by researchers from the University of Utah. In 1980, this area was part of a 35 square mile area designated as critical habitat when the Utah Beaver Dam Slope population was listed as threatened by the U.S. Fish and Wildlife Service. The BLM in Utah is also a participant in the Washington County Habitat Conservation Plan, a key provision of which is that tortoise habitat essential to the Upper Virgin River Recovery Unit would be acquired by BLM for management of tortoise recovery.

In Arizona, BLM is a member of the Arizona Interagency Desert Tortoise Team, which is a collection of biologists from agencies with management responsibility for tortoises or their habitat. BLM manages the majority of the desert tortoise habitat in the Sonoran Desert in the United States, as well as the habitat upon which the Mojave Desert tortoises are dependent on the Arizona Strip.

In Nevada, BLM is a participant in the Clark County Habitat Conservation Plan and has an active role in the research being conducted at the Desert Tortoise Conservation Center in Las Vegas.

The BLM manages public lands for many different resources and uses other than wildlife, such as mineral exploration and development, production of energy, recreation, and livestock grazing. To reduce impacts to the tortoises and their habitats, BLM closely reviews proposed activities for the public lands. In some cases, special actions to protect the species and its habitat are required. The BLM is in the process of developing and implementing management plans for the major tortoise habitats within the four state region. Individuals and companies wishing additional information on activities on BLM-administered lands should contact BLM at one of the numbers listed in Table 3.

U.S. FISH AND WILDLIFE SERVICE

The U.S. Fish and Wildlife Service has the responsibility for directing the recovery of the tortoise and other threatened and endangered species through the Endangered Species Act of 1973 (as amended). Soon after the Federal listing of the tortoise as threatened species in 1990, the U.S. Fish and Wildlife Service established a Recovery Team of experts in conservation biology, behavior, genetics, biogeography, disease, ecology, and physiology. In 1994, the Recovery Team and the U.S. Fish and Wildlife Service developed and published a Recovery Plan for populations occurring north and west of the Colorado River. The Service supports research on threatened and endangered species, often through transfer of funds to the state wildlife agencies, and can also acquire habitat. Through the law enforcement branch, the U.S. Fish and Wildlife Service enforces the Endangered Species Act.

The U.S. Fish and Wildlife Service works with individuals and businesses that propose actions with potential to affect tortoises and their habitats. A company, individual, group, or county can prepare a Habitat Conservation Plan that minimizes impacts to tortoises and their habitats. The U.S. Fish

and Wildlife Service requires that Habitat Conservation Plans provide an overall benefit to the recovery of the tortoise. Such plans can involve habitat acquisition, protective fencing, research, and education programs. The FWS oversees a similar evaluation process for government-proposed activities that may affect tortoises and their habitats. For additional information, call the numbers listed in Table 3 for information from the U.S. Fish and Wildlife Service office in your state.

Visit the U.S. Fish and Wildlife Service website at:

<http://bluegoose.arw.r9.fws.gov/nwrsfiles/wildlifemgmt/speciesaccounts/reptiles/deserttortoise.html>

U.S. GEOLOGICAL SURVEY

The Biological Resources Division of the U.S. Geological Survey undertake research on a wide variety of topics of interest to Department of Interior agencies (Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service). Scientists at BRD also assist other government agencies with research and monitoring of natural resources. Research scientists at several field stations in Arizona, California, Nevada, and Utah conduct research on the desert tortoise and its habitats. They focus on issues related to recovery of desert tortoise populations and habitat, such as population sampling techniques, status and trends in populations, impacts of human activities on populations and habitats, causes of mortality, and general ecology. They present their research at scientific and public meetings such as the annual Desert Tortoise Council Symposium, the Wildlife Society, and the Ecological Society of America. They also prepare journal articles and papers for publication in symposia proceedings.

NATIONAL PARK SERVICE

The National Park Service administers six large areas encompassing desert tortoise habitat in California, Nevada, and Arizona. Collectively these areas contain over seven million acres of land. Three national parks, Joshua Tree National Park (792,749 acres) and Death Valley National Park (3,367,627 acres) in California, and Saguaro National Park (91,452 acres) in Arizona are Federal areas that provide the highest degree of preservation of desert tortoises and their habitat due to congressional mandates. Organ Pipe Cactus National Monument (330,688 acres) in Arizona also has a Federal mandate providing for strict preservation of desert tortoises and their habitat. In these four areas preservation of the scenic, cultural, physical, and biological resources are emphasized and human uses are constrained and highly regulated.

Lake Mead National Recreation Area (1,400,000 acres in Arizona and Nevada) and the Mojave National Preserve (1,450,000 acres in California) have different legal mandates that permit a wider range of recreational and commercial activities than the national parks and monuments. However, the National Park Service administrative laws of these units still emphasizes preservation over use, which provides desert tortoises and their habitat with a high degree of direct Federal protection.

National Park units containing Mojave populations of the desert tortoise, which are listed under the Endangered Species Act as threatened, seek management compliance with this act and coordinate programs with the U.S. Fish and Wildlife Service and state agencies. The other National Park units also coordinate tortoise programs with other Federal and state agencies. All the park units have varying degrees of inventory and monitoring programs for tortoises funded by National Park Service funds. Research programs on tortoises occurring in the six units are funded and administered in cooperation with the Biological Resources Division of the U.S. Geological Survey.

CHAPTER 7

ORGANIZATIONS WITH EXPERTISE ON DESERT TORTOISES

Many people request additional information about desert tortoises or ask what they can do to help the tortoise. You can tell them about the organizations described below and, depending on their interests, direct them to one or more nonprofit corporations or groups that sponsor programs on education, husbandry, adoption, land acquisition, conservation, and science. In some cases, the organization may have a local branch or chapter. Your efforts to assist the public will have many long-term benefits for tortoises because people with knowledge are a very valuable asset in recovering a threatened species.

○ **DESERT TORTOISE COUNCIL (COUNCIL).** The Council was founded in 1975 to assure the continued survival of viable populations of the desert tortoise throughout its range in California, Arizona, Nevada, and Utah. Membership is composed of biologists and managers from Federal and state agencies, research scientists, students, conservationists, experts in husbandry, and the general public. The Council has hosted an annual meeting and symposium since 1976 and also publishes and disseminates proceedings of the symposia. Each year the symposium has grown in length and scope, and about 200 people attend to hear over 50 papers, special sessions, and panel discussions on the latest research data and management techniques on such subjects as disease, health, behavior, ecology, general physiology, and management. In recent years the Council has held workshops to train biologists and managers about governmental requirements to protect habitat and animals and for surveying tortoise populations and habitat.

The Council serves in a professional advisory manner on matters involving management, conservation, and protection of tortoises. Members often serve on government-sponsored committees and review teams to help resolve problems. The Council also supports programs that ensure the continued survival of wild tortoises. To commend outstanding action and dedication by individuals and organizations fostering objectives of the Council, awards are presented at the annual symposium. For information about joining the Council or attending workshops and symposia, call or write to:

Desert Tortoise Council
P.O. Box 3141
Wrightwood, CA 92397

visit the Desert Tortoise Council website at:

www.deserttortoise.org

ARIZONA

○ The **NATIONAL TURTLE AND TORTOISE SOCIETY** is involved in the conservation and study of turtles and tortoises. They distribute a newsletter, *The Carapace*. For information about the Society, call (602) 275-6887 or write:

National Turtle and Tortoise Society
P.O. Box 66935
Phoenix, AZ 85082-6935
(602) 967-6265

○ The TUCSON HERPETOLOGICAL SOCIETY supports conservation, education, and research into amphibians and reptiles of Arizona and Mexico. For information about the Society, write:

Tucson Herpetological Society
P.O. Box 709
Tucson, AZ 85702-0709
(520) 760-0574
Email: bsavary@azstarnet.com

visit the Tucson Herpetological Society
website at:

www.azstarnet.com/~bsavary/thspage.html

○ The ARIZONA HERPETOLOGICAL ASSOCIATION is dedicated to the conservation, study, and understanding of reptiles and amphibians. For information about the AHA, call or write:

Arizona Herpetological Association
P.O. Box 64531
Phoenix, AZ 85382-4531
(602) 894-1625
Email: info@arizonaherpetological.com

visit the Arizona Herpetological Society
website at:

www.arizonaherpetological.com

CALIFORNIA

○ DESERT TORTOISE PRESERVE COMMITTEE (COMMITTEE). The Committee was founded in 1974 to promote the welfare of the desert tortoise in the southwestern United States and to establish a preserve or Natural Area on the slopes of the western Rand Mountains and adjacent Fremont Valley (eastern Kern County) where the density of tortoises was the highest ever recorded. The Committee has been remarkably successful in raising funds to acquire habitat, buy fencing, establish visitor facilities, and provide support for naturalists and critical monitoring projects at the Desert Tortoise Research Natural Area. To achieve its goals, members work closely with the California Department of Fish and Game, the Bureau of Land Management, The Nature Conservancy, some major corporations and developers, the California Turtle and Tortoise Club, and many other groups. A long-term program for land acquisition has been established and thousands of acres of habitat have been acquired. Programs for stewardship, education, and monitoring have functioned productively for several years. In 1991 the Committee expanded its land acquisition and stewardship efforts to other parts of the California deserts. The Committee has new holdings at Pilot Knob in the Central Mojave Desert. Members and volunteers lead tours, develop brochures, maintain nature trails and fencing, and give slide programs to thousands of people annually. A newsletter, *Tortoise Tracks* is published quarterly, and the corporation holds annual meetings in January.

The Committee and members of its Board of Trustees have been the recipients of numerous local and national awards. For example, Congress identified the Committee as a local, grass-roots organization dedicated to preserving biodiversity. For information, write to:

Desert Tortoise Preserve Committee, Inc.

4067 Mission Inn Avenue
Riverside, California 92501
(909) 683-3872 (phone)
(909) 683-6949 (fax)
Email: dtpc@pacbell.net

visit the DTPC website at:

www.tortoise-tracks.org

○ the CALIFORNIA TURTLE AND TORTOISE CLUB (CLUB or CTTC). Founded in 1964, the

CTTC has over 3,000 members and 13 chapters and branches. New chapters are being formed almost yearly. The Club was organized to preserve, conserve, study, and disseminate knowledge about turtles and tortoises. Chapters and branches hold monthly meetings at which local and international experts speak on a variety of subjects. The Club also has sponsored symposia and programs of national and international significance. The various chapters and branches raise funds for educational programs, as well as local and world-wide conservation projects for turtles and tortoises. The Club is most widely recognized for its State-sanctioned ADOPTION PROGRAM for captive desert tortoises. The ADOPTION PROGRAM is managed through a network of volunteers. Because of its efforts to protect the desert tortoise, the Club received an award from the Secretary of the Interior. The Club produces a monthly newsletter, the *Tortuga Gazette*, and has a website.

The following information on each chapter and branch provides times and locations of meetings, names of some of the 2004 officers, and the permanent addresses.

Executive Board for CTTC	Chairman: Michael Barger	(310) 991-7893
P.O. Box 7300	V-Chair: Tom Paquette	(714) 671-1467
Van Nuys, CA 91409-7300	Secretary: Michael J. Connor, Ph.D.	(818) 345-0425

Cen-Val Chapter	President: Yvonne Gomez	(209) 292-5390
P.O. Box 727	V. Pres: Wendy Russell	(559) 226-9280
Clovis, CA 93613-0727	Adoptions: Patty O'Brien	(559) 454-0830

Foothill Chapter	President: Dianne Huwaldt	(626) 292-1494
P.O. Box 51002	Treas.: Pam Eliassen	(626) 798-2744
Pasadena, CA 91115-1002	Adoptions: Linda Crawford	(626) 836-0399
Meets: 4 th Friday, 7:30 p.m. at Los Angeles Arboretum, 301 N. Baldwin Avenue, Arcadia		

High Desert Chapter	President: Lois Papner	(760) 244-7169
P.O. Box 163	Secretary: Dave Zantiny	(760) 242-5198
Victorville, CA 92392	Adoptions: Judy Rogers	(760) 243-4518
Meets: 2 nd Monday, 7:00 p.m. at Sterling Inn Regency Room, 17738 Francesca Rd., Apple Valley		

Inland Empire Chapter	President: Kirk Taylor	(909) 875-1501
P.O. Box 2371	V. Pres: Faye Vega	(909) 796-3434
San Bernardino, CA 92406	Adoptions: Jim Altman	(909) 785-6991
Meets: 1 st Friday, 7:30 p.m. at San Bernardino County Museum, 2024 Orange Tree Lane, Redlands		

Kern County Branch	President: Leonard Plunkett	(661) 242-1723
P.O. Box 81772	V. Pres: Audrey Polanco	(661) 589-9846
Bakersfield, CA 93380-1772	Adoptions: Kirk Muthc	(661) 393-4419

Low Desert Chapter	President: Kim Clark	(760) 363-7880
P.O. Box 4156	Secretary: Emily McLean	(760) 341-2973
Palm Desert, CA 92261	Adoptions: Kim Clark	(760) 363-7880
Meets: 1 st Monday, every other month, 7:00 p.m. at The Living Desert, 47-900 Portola, Palm Desert		

Orange County Chapter President: Tom Paquette (714) 671-1467
P.O. Box 11124 Adoptions: Sharon Paquette (714) 731-7561
Santa Ana, CA 92711 Treasurer: Lynda Bagley (714) 437-7042
Meets: 2nd Friday, 7:30 p.m. at Chapman Univ., Science Center Rm. 127, 346 Center St., Orange

Santa Barbara-Ventura Chapter President: Tim Terrio (805) 898-0135
P.O. Box 60745 Adoptions: Joan Terrio (805) 898-0135
Santa Barbara, CA 93160
Meets: 2nd Thursday, 7 p.m. at Faith Lutheran Church, 1335 Vallecito Place, Carpinteria

TOOSLO

San Luis Obispo Chapter President: Bob Larson (805) 481-2469
P.O. Box 14222 V. Pres: Rick Munos (805) 466-5730
San Luis Obispo, CA 93406 Secretary: Denise Boddeker (805) 528-5740
Meets: 2nd Wednesday, 7:00 p.m. at PG&E Community Center, Ontario Road, San Luis Obispo

Valley Chapter President: Ken Kochanski (661) 947-4020
P.O. Box 2896 V. Pres/Adopt: Stacey Josker (805) 522-6689
Canoga Park, CA 91396
Meets: 3rd Friday, 7:30 p.m. at Woodland Hills Christian Church, 5920 Shoup Ave, Woodland Hills

Westchester Chapter President: Diane Brouhard (310) 417-8704
P.O. Box 90252 V. Pres: Leslie Gordon (213) 763-3238
Los Angeles, CA 90009 Adoptions: Diane Brouhard (310) 417-8704
Meets: 2nd Friday, 7:30 p.m. at Westside Pavilion, Pico Blvd. at Westwood Blvd., W. Los Angeles

Turtle and Tortoise Care Society President: Eric Akaba (310) 478-0178
P.O. Box 15965 Treasurer: Ralph Hoekstra (714) 962-0624
Long Beach, CA 90815-0965 Adoptions: Peggy Nichols (562) 429-8002
Meets: 3rd Friday, 7:00 p.m. at St. Luke's Lutheran Church, 5633 E. Wardlow Rd., Long Beach

Visit the CTTC website at: www.tortoise.org

OTHER CALIFORNIA ORGANIZATIONS

The Living Desert

Curator of Animals: Terrie Correll
47900 Portola Avenue
Palm Desert, California 92260
(760) 346-5694

Sacramento Turtle and Tortoise Club

President: Felice Rood
25 Starlit Circle
Sacramento, CA 95831
(916) 421-1134

San Diego Turtle and Tortoise Society

P.O. Box 519

Imperial Beach, CA 91933-0519

NEVADA

○ TORTOISE GROUP, a Nevada-based organization emphasizing protection of wild desert tortoises and their natural habitat and responsible care of legally-held pet tortoises. This organization achieved non-profit status in 1982 and has three objectives: (1) to provide adoption services for unwanted or displaced pet tortoises; (2) to promote responsible attitudes and actions by providing information and educational programs for the public; and, (3) to discourage unauthorized collections of wild tortoises and the release of pets. Since 1989 a representative of the Tortoise Group has been a member of the advisory committee assisting Clark County to develop the Habitat Conservation Plan for the Desert Tortoise and to monitor its implementation. Tortoise Group also participates on numerous subcommittees, such as the Tortoise Disposition and Public Information and Education Subcommittee.

The Tortoise Group presents monthly programs with guest speakers for the general public, provides speakers for school classes and other interested groups, and distributes a newsletter. They also have 15 information sheets on adoption and care of captive tortoises available through standard mail and facsimile messages:

- #1 Avoiding Crowding and Planning for Compatibility Among Your Tortoises.
- #2 Determining the Age and Sex of Your Desert Tortoise.
- #3 Measuring Tortoise Size and How Tortoises Grow.
- #4 Comparison of Nutrient Value in Food. Feeding Do's and Don'ts.
- #5 Marking Your Tortoise.
- #6 The North American Box Turtle--How to Care for it in the Las Vegas Area.
- #7 Transporting Tortoises.
- #8 Alternative Design for an Underground Tortoise Burrow.
- #9 Considering Using PVC Pipe for Tortoise Burrows? Read This First.
- #10 The Above Ground Burrow.
- #11 Keeping Records of Tortoise Behavior and Growth.
- #12 Planting Prickly Pear Pads for Tortoises.
- #13 Transplanting Dandelions.
- #14 Burrows for Hatchlings and Juveniles up to 3.5" Shell Length.
- #15 Alternative Location for Hibernation When an Outdoor Burrow is not Available.

For information on membership and other topics, call or write to:

Tortoise Group

5157 Poncho Circle

Las Vegas, NV 89119

(702) 739-8043

Email: tortoisegroup@worldnet.att.net

visit the Tortoise Group website at:

www.tortoisegroup.org

Tortoise Group meets 1:00-3:00 p.m. on the 3rd Saturday of each month (February through September) at the Nevada State Museum in Lorenzi Park in Las Vegas

○ RENO TUR-TOISE CLUB was organized in 1991 and has members from throughout the country. Most members are in northern Nevada. The purpose of the Club is to find homes for tortoises and turtles of all kinds. In recent years, most of the tortoises placed for adoption have come from construction areas in southern Nevada. In addition to adoptions, the Club also provides rescue and infirmity services for sick and injured turtles and tortoises. Members distribute a newsletter, *Tur-Toise Tales*, provide educational materials to the public on the plight of the desert tortoise and other species of turtles and tortoises, offer programs to schools and libraries, and assist with the conservation of all chelonians in wild habitats.

Reno Tur-Toise Club

P.O. Box 8783

Reno, NV 89507

(702) 972-8532

Email: TortoiseQN@aol.com

The Club meets April-November, 3rd or 4th Saturday at 1:00 p.m. at North Valley's Library, exit 73, Highway 395 North in Reno, Nevada

APPENDIX 1

EXCERPTS FROM SELECTED FEDERAL AND STATE LAWS

The following material is provided for the convenience of law enforcement officers.

FEDERAL LAWS - from the Endangered Species Act of 1973, as amended (1988):

PENALTIES AND ENFORCEMENT

Sec. 11. (a) Civil Penalties. - (1) Any person who knowingly violates, and any person engaged in business as an importer or exporter of fish, wildlife, or plants who violates, any provision of the Act, or any provision of any permit or certificate issued hereunder, or of any regulation issued in order to implement subsection (a)(1)(A), (B), (C), (D), (E), or (F), (a)(2)(A), (B), (C), or (D), (c), (d) (other than regulation relating to record keeping or filing of reports), (f), or (g) of section 9 of this Act, may be assessed a civil penalty by the Secretary of not more than \$25,000 for each violation. Any person who knowingly violates, and any person engaged in business as an importer or exporter of fish, wildlife, or plants who violates, any provision of any other regulation issued under this Act may be assessed a civil penalty by the Secretary of not more than \$12,000 for each such violation. Any person who otherwise violates any provision of the Act, or any regulation, permit, or certificate issued hereunder, may be assessed a civil penalty by the Secretary of not more than \$500 for each such violation. No penalty may be assessed under this subsection unless such person is given notice and opportunity for a hearing with respect to such violation. Each violation shall be a separate offense. Any such civil penalty may be remitted or mitigated by the Secretary. Upon any failure to pay a penalty assessed under this subsection, the Secretary may request the Attorney General to institute a civil action in a district court of the United States for any district in which such person is found, resides, or transacts business to collect the penalty and such court shall have jurisdiction to hear and decide any such action. The court shall hear such action on the record made before the Secretary and shall sustain his action if it is supported by substantial evidence on the record considered as a whole. (2) Hearings held during proceedings for the assessment of civil penalties by paragraph (1) of this subsection shall be conducted in accordance with section 554 of title 5, United States Code. The Secretary may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and administer oaths. Witnesses summoned shall be paid the same fees and mileage that are paid to witnesses in the courts of the United States. In case on contumacy or refusal to obey a subpoena served upon any person pursuant to this paragraph, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Secretary or to appear and produce documents before the Secretary, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(3) Notwithstanding any other provision of the Act, no civil penalty shall be imposed if it can be shown by a preponderance of the evidence that the defendant committed an act based on a good faith belief that he was acting to protect himself or herself, a member of his or her family, or any other individual from bodily harm, from any endangered or threatened species.

(b) CRIMINAL VIOLATION.--(1) Any person who knowingly violates any provision of this Act, of any permit or certificate issued hereunder, or of any regulation issued in order to implement subsection (a)(1)(A), (B), (C), (D), (E), or (F); (a)(2)(A), (B), (C), or (D), (c), (d) (other than a regulation relating to record keeping, or filing of reports), (f), or (g) of section 9 of this Act shall, upon conviction, be fined not more than \$50,000 or imprisoned for not more than one year, or both. Any person who knowingly violates any provision of any other regulation issued under this Act shall, upon conviction, be fined not more than \$25,000 or imprisoned for not more than six months, or

both.

(2) The head of any Federal agency which has issued a lease, license, permit, or other agreement authorizing a person to import or export fish, wildlife, or plants, or to operate a quarantine station for imported wildlife, or authorizing the use of Federal lands, including grazing of domestic livestock, to any person who is convicted of a criminal violation of this Act or any regulation, permit, or certificate issued hereunder may immediately modify, suspend, or revoke each lease, license, permit, or other agreement. The Secretary shall also suspend for a period of up to one year, or cancel any Federal hunting or fishing permits or stamps issued to any person who is convicted of a criminal violation of any provision of this Act or any regulation, permit, or certificate issued hereunder. The United States shall not be liable for the payments of any compensation, reimbursement, or damages in connection with the modification, suspension, or revocation of any leases, licenses, permits stamps, or other agreements pursuant to this section.

STATE LAWS - Arizona Game and Fish Commission

Order 43: Reptiles: (G): There is no open season on Phrynosoma mcallii (flat-tailed horned lizard), Heloderma suspectum (Gila monster), Crotalus lepidus (rock rattlesnake), Crotalus pricei (twin-spotted rattlesnake), Crotalus willardi (ridgenose rattlesnake), Sistrurus catenatus (massasauga), and Gopherus agassizii (desert tortoise): see Notes 3 and 4. (Note 3: Pursuant to R12-4-407.1, desert tortoises legally held prior to January 1, 1988, may be possessed, transported, and propagated. Possession limit is one desert tortoise per person. Progeny of lawfully held desert tortoises may, for twenty-four months from the date of hatching, be held in captivity in excess of the stated limit. Before or upon reaching twenty-four months of age, such progeny must be disposed of by gift to another person or as directed by the Department. *Note 4 applies to massasaugas*).

R12-4-401 LIVE WILDLIFE DEFINITIONS: *Restricted live wildlife* means that wildlife which has been determined by the Commission to be an actual or potentially significant threat to indigenous wildlife by competition, disease or parasites, habitat degradation, predation, or impact on population management; or an actual or potentially significant threat to public safety by disease, physical threat, property damage, or nuisance. *Restricted live wildlife* is listed in R12-4-406 and a special license or exemption pursuant to Article 4 is required in order to engage in any activity prohibited by A.R.S. 17-306 or R12-4-402.

STATE LAWS - Fish and Game Code for California (from J., B., and L Gould 1991)

2080. Prohibiting the import or export of endangered species. No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (Chapter 10 (commencing with section 1900) of this code), or in the California Desert Native Plants Act Division 23 (commencing with Section 70500) of the Food and Agricultural Code).

12008. Violation of provisions relating to endangered species.

Except as otherwise provided in Section 597 of the Penal Code, the punishment for a violation of any of the following provisions is a fine of not more than five thousand dollars (\$5,000) or imprisonment in the county jail for not more than one year, or both the fine and imprisonment.

(a) Chapter 1.5 (commencing with Section 2050) of Division 3. [California Endangered Species Act]

STATE LAWS - CALIFORNIA ADMINISTRATIVE CODE, TITLE 14.

674. Permits to Possess Desert Tortoises (Gopherus).

(a) Desert Tortoises may be possessed only under the authority of a permit issued by the department. The department may issue a permit for the possession of a desert tortoise provided the tortoise was legally acquired and possessed prior to March 7, 1973. The department may require an applicant for a permit to submit proof of the legal acquisition of any desert tortoise.

(b) Applications for a tortoise permit shall be submitted on forms furnished by the department and may be filed with the department at any time. Upon approval of the application, the department shall provide a tag which shall be affixed to the desert tortoise as directed by the department.

© No desert tortoise may be transferred to any other person without prior department approval.

(d) Possession of a desert tortoise, regardless of subspecies, except under the authority of a department permit is in violation of this section. Untagged desert tortoises shall be seized by the department.

NOTE: Authority cited: Section 200, 202, 1002 and 5002, Fish and Game Code. Reference: Sections 200-202, 203.1, 5000-5002, 5060 and 5061, Fish and Game Code.

APPENDIX 2

LIST OF VETERINARIANS

This list has been compiled to help people locate veterinarians who can treat turtles and tortoises. Appearance of a veterinarian on this list does not constitute an endorsement by the authors or any club or agency. However, individuals wishing to have their captive tortoises examined or treated by a veterinarian should make their own inquiries as to the qualifications and experience of the veterinarians, their procedures for treatment, and prices. Names of veterinarians are arranged by state and area code.

Although there have been tremendous advances in the treatment of reptiles over the last few years, readers should be aware that few veterinarians have received specialized training in reptile/tortoise medicine. Medical treatment for tortoises can be expensive. Diagnostic and laboratory tests, combined with the cost of medication may easily run \$100 to \$200, with much higher costs for surgery.

Since most illnesses occur in recently acquired animals or in animals kept for long periods under improper conditions, expensive medical costs often can be avoided. Be careful when selecting an animal, and make sure that you can provide the proper care before you acquire a pet tortoise. Quarantine new pets to prevent the spread of disease.

NEVER RELEASE A SICK OR INJURED TORTOISE BACK INTO THE WILD!

ARIZONA

Mesa/Tempe/Scottsdale/Apache Junction

Robert Bishop, DVM
Jay Johnson, DVM
Tri-City Veterinary Hospital
2332 E. Broadway
Tempe, AZ 85282
(602) 968-9236

Todd Driggers, DVM
Bernie Mangone, DVM
Mesa Veterinary Hospital
858 Country Club Drive
Mesa, AZ 85201
(602) 833-7330

Todd Driggers, DVM
Foothills Mobile Exotic DVM
(Ahwatukee and surrounding areas)
(602) 706-8478

Marc Schmidt, DVM
10241 East Apache Trail
Apache Junction, AZ 85220
(602) 984-2114

Phoenix/Glendale

Michael Kiedrowski, DVM
Mountain View Animal Hospital
9812 N. 7th Street
Sunnyslope, AZ 85020
(602) 861-1355

Marilyn Lieb, DVM
Desert View Animal Hospital
4126 E. Indian School Road
Phoenix, AZ 85018
(602) 955-5500

Kate McCullough, DVM
Susan Goshert, DVM
Lauren Craft, DVM
Camelwest Animal Hospital
5502 West Camelback Road, Suite 1
Glendale, AZ 85301
(602) 934-1272

Yuma

Cheryl Haugo, DVM
2940 Columbia Avenue
Yuma, AZ 85364
(520) 783-5010

Tucson

Jim Jarchow, DVM
Sonora Animal Hospital
410 West Simmons Road
Tucson, AZ 85705
(520) 888-8988

CALIFORNIA

Central Valley/Coastal California: 209 or 805 Area Codes

Richard Svihla, DVM
Lacy Animal Hospital
522 Warren Drive
Lemoore, CA 93245
(559) 924-7532

Christine McFadden, DVM
Valley Animal Hospital
58 West 16th Street
Merced, CA 95340
(209)384-7387

Stephen Beck, DVM
Grand Avenue Veterinary Hospital
600 Grand Avenue
Grover Beach, CA 93433
(805) 481-2595

Sherry Clark, DVM
Southwest Veterinary Hospital
2905 Brundage Lane
Bakersfield, CA 93304
(805) 327-5719

Laura Gonzales, DVM
Valley Veterinary Clinic
845 Los Angeles Avenue
Simi Valley, CA 93065
(805) 526-0917

Greg Haskell, DVM
St. Francis Pet Clinic
138 W. Ortega Street
Santa Barbara, CA 93101
(805) 963-0577

James Gray, DVM
Ventura Veterinary Hospital
1784 Thompson Blvd.
Ventura, CA 93001
(805) 648-2797

Robert Mushkot, DVM
Adobe Veterinary Hospital
17787 Sierra Highway
Canyon Country, CA 91351
(805) 251-3710

Marti Rae Armington, DVM
Port Hueneme Animal Hospital
701 E. Port Hueneme Road
Port Hueneme, CA 93041
(805) 488-4514

E. Thompson and S. McCormick, DVM
Conejo Valley Veterinary Clinic
1850 E. Thousand Oaks Blvd.
Thousand Oaks, CA 91362
(805) 495-4671

Michael Gerardo, DVM
Rancho Sequoia Veterinary Hospital
3380 Los Angeles Avenue
Simi Valley, CA 93065
(805) 522-7476

James Gray, DVM
Ventura Veterinary Hospital
1784 Thompson Blvd.
Ventura, CA 93001
(805) 648-2797

Steven Fenster, DVM
Clovis Pet Hospital
722 Lincoln Ave.
Clovis, CA 93612
(559) 297-1222

G. K. Shahbazian, DVM
Escalon Veterinarian Hospital
66 E. Excalon Ave., #102
Fresno, CA 93710
(559) 432-3300

Ken Stocks, DVM
San Joaquin Veterinary Clinic
4333 N. Blackstone
Fresno, CA 93704
(209) 227-3596

Kelly Weaver, DVM
Vet Smart Pet Hospital
3220 W. Shaw Ave.
Fresno, CA 93711
(209) 271-0437

Duane Stephens, DVM
Coast Veterinary Clinic
1060 Quintana Rd.
Morro Bay, CA 93442
(805) 772-2228

Donald Martinucci, DVM
Adobe Animal Clinic
2255 S. Broadway
Santa Maria, CA 93454
(805) 925-1131

Dr. Faria
Atchison Veterinary Hospital
3112 Atchison
Riverbank, CA 95367
(209) 869-1856

Eric Westheimer, DVM
Valley Animal Hospital
102 S. Fairview Ave.
Goleta, CA 93117
(805) 964-7755

Karen S. Martin, DVM
East/West Veterinary Clinic
1625 #A Thousand Oaks Blvd.
Thousand Oaks, CA 91362
(805) 496-2930

W. M. Thomas Jr., DVM
L. E. Martin III, DVM
Midtown Veterinary Clinic
3333-D Kimber Dr.
Newbury Park, CA 91320
(805) 498-6694

Mojave and Colorado Deserts: 760 and 805 Area Codes

Alson Sears, DVM
Sears' Veterinary Hospital
565 West Avenue 1
Lancaster, CA 93534
(805) 948-5911

David Gantenbein, DVM
Antelope Valley Animal Hospital
1326 West Ave. N.
Palmdale, CA 93551
(805) 273-1234

Terry Hicks, DVM
Palm Desert Pet Hospital
73120 Highway 111
Palm Desert, CA 92260
(760) 568-9377

C. Lind, DVM
Bishop Veterinary Hospital
1650 N. Sierra Highway
Bishop, CA 93514
(760) 873-5801

J. McClaine, DVM
Desert Care Animal Hospital
15664 Main Street, Suite 130
Hesperia, CA 92345
(760) 949-7387

Jeff Novak, DVM
Crestwood Animal Hospital
1131 Inyokern Road
Ridgecrest, CA 93555
(760) 446-7616

Southern California: 818 and 626 Area Codes

Ted Adler, DVM; Dan Reimer, DVM
Adler Veterinary Group
16911 Roscoe Blvd.
Sepulveda, CA 91343
(818) 893-6366

Michael Gary, DVM
Cypress Avenue Animal Hospital
1400 Cypress Avenue
Covina, CA 91724
(626) 331-0775

Michael Brown, DVM
Noreda Animal Clinic
8918 Reseda Blvd.
Northridge, CA 91324
(818) 886-1216

Steve Haerther, DVM
Cozycroft Pet Hospital
20601 Plummer
Chatsworth, CA 91311
(818) 341-3040

Gaylon TeSlaa, DVM
Woodcliff Animal Hospital
10115 Canoga Avenue
Chatsworth, CA 91311
(818) 998-2998

Ronald H. Corbett, DVM
Alosta Animal Hospital
1821 E. Alosta Avenue
Glendora, CA 91740
(626) 963-1674

R. A. Kray DVM
Kray Veterinary Clinic
1140 N. Pacific Avenue
Glendale, CA 91202
(818) 502-1134

Michael Krivoy, DVM
Berkeley Pet Hospital
10908 Burbank Blvd.
North Hollywood, CA 91601
(818) 763-6221

Dennis Morley, DVM
Morley Animal Hospital
7125 Darby Avenue
Reseda, CA 91335
(818) 343-1915

Amy Worell, DVM
Y. Tamura, DVM
R. Bergman, DVM
All Pets Medical Center
7606 Fallbrook Avenue
West Hills, CA 91304
(818) 883-2600

David Weule, DVM
Rainbow Veterinary Hospital
2321 Empire Avenue
Burbank, CA 91504
(818) 846-1166

Richard Willis, DVM
Pasadena Pet Hospital
25 N. Fulton ST
Pasadena, CA 91107
(626) 795-4353

Dennis L. Fees, DVM
Arcadia Small Animal Hospital
311 N. Santa Anita Ave.
Arcadia, CA 91066-1270
(626) 447-2244

H. D. Henstra, DVM
Alhambra Veterinary Hospital
1501 W. Mission Road
Alhambra, CA 91803
(626) 289-9227

J. Isaacs, DVM
Encino Veterinary Clinic
17009 Ventura Blvd.
Encino, CA 91316
(818) 783-7387

Bradford Capper, DVM
Agoura Animal Clinic
28282 Dorothy Dr.
Agoura, CA 91301
(818) 991-1036

Chris Cauble, DVM
Mobile Vet/House calls
in the Los Angeles Area
820 Thompson Ave., #2
Glendale, CA 91201
(818) 242-5576

Southern California and Greater Los Angeles
Area: 310 and 562 Area Codes

Patty Boge, DVM
Narbonne Animal Clinic
25445 Narbonne Avenue
Lomita, CA 90717
(310) 325-5850

J. J. Bernstein, DVM
Ber-Mar Pet Hospital
349 E. Florence Avenue
Inglewood, CA 90301
(310) 677-9187

Carl Palazzolo, MBA DVM
Bill Ridgeway, DVM
T. Greenberg, DVM
Long Beach Animal Hospital
3816 E. Anaheim Street
Long Beach, CA 90804
(562) 434-9966

Michael Oshry, DVM
Inglewood Veterinary
815 W. Manchester
Inglewood, CA 90301
(310) 649-6211

Camillo Rocha, DVM
Firestone Animal Hospital
7539 E. Firestone Blvd.
Downey, CA 90241
(562) 928-1341

R. M. Kaufman, DVM
Harbor Animal Hospital
2078 Torrance Blvd.
Torrance, CA 90501
(310) 328-3733

M. Chabam, DVM
Rolling Hills Animal Hospital
28916 S. Western Avenue
San Pedro, CA 90732
(310) 831-1209

Norman Weiner, DVM
Bel-Air Animal Hospital
2340 S. Sepulveda
West Los Angeles, CA 90064
(310) 479-4419

Walter Roszkopf, DVM
Richard Woerpel, DVM
Avian and Exotics
4871 W. Rosecrans Avenue
Hawthorne, CA 90250
(310) 679-0693

A. Glasser, DVM
VCA Rossmoor El Dorado Animal Hospital
10832 Los Alamitos Blvd.
Los Alamitos, CA 90720
(562) 598-8621

T. Manucy, DVM
VCA Golden Cove Animal Hospital
31236 Palos Verdes Drive West
Rancho Palos Verdes, CA 90274
(310) 377-7804

Chris Cauble, DVM; B. Brunskill, DVM
Center Animal Hospital
897 Silver Spur Road
Rolling Hills Estates, CA 90274
(310) 377-5548

Frank Lavac, DVM; Cassie Jones, DVM
Wilshire Animal Hospital
2421 Wilshire Blvd.
Santa Monica, CA 90403
(310) 828-4587

Walter Holtan, DVM
Pet Medical Center
1534 14th Street
Santa Monica, CA 90403
(310) 393-8218

Gerry Citek, DVM
Norwalk Pet Care Clinic
12858 Pioneer Blvd.
Norwalk, CA 90650
(562) 863-3366

Southern California: 909 Area Code

Sherry Brothers, DVM
Highland Avenue Veterinary Clinic
1731 E. Highland Avenue
San Bernardino, CA 92404
(909) 889-0093

Nancy Modglin, DVM
Tri City Pet Hospital
25837 Business Center Dr., Suite C
Redlands, CA 92374
(909) 796-4277

Richard Johnson, DVM
Central Veterinary Hospital
281 North Central Avenue
Upland, CA 91786
(909) 981-2855

Ann McDowell, DVM
Chaparral Pet Hospital
915A West Foothill
Claremont, CA 91711
(909) 625-1561

Louis Burch, DVM
Animal Medical Clinic of Redlands
340 N. 6th St.
Redlands, CA 92374
(909) 793-4775

Roger Levoy, DVM
Baldy View Animal Hospital
1497 Foothill Blvd.
LaVerne, CA 91750
(909) 596-7771

Dr. Hong Park, DVM
Sunnymead Veterinary Clinic
24588 Sunnymead Blvd.
Moreno Valley, CA 92553
(909) 242-4056

Southern California: 714 and 949 Area Codes

Kechaen Chand, DVM
SeaGate Veterinary Hospital
16061 Bolsa Chica Road
Huntington Beach, CA 92649
(714) 846-4436

H. Kopit, DVM
Stanton Pet Hospital
8591 Katella
Stanton, CA 90680
(714) 828-5891

Patricia Pannier, DVM
Orange Olive Veterinary Hospital
2187 Orange-Olive Road
Orange, CA 92865
(714) 998-1510

W. Boyd, DVM
Tri-City Pet Hospital
1145 S. Placentia Avenue
Fullerton, CA 92631
(714) 870-9090

Don Lundholm, DVM
Adams Pet Clinic
10130 Adams
Huntington Beach, CA 92646
(714) 964-1605

Gayle Roberts, DVM
Northwood Animal Hospital
13925 Yale Avenue, #115
Irvine, CA 92620
(949) 559-1992

Randy Strathman, DVM
Corona Community Animal Hospital
423 E. Grand Avenue
Corona, CA 91719
(909) 279-7387

Donald Tyler, DVM
Beach City Animal Hospital
7412 Warner Avenue
Huntington Beach, CA 92647
(714) 847-3523

K. G. Kali, DVM
North Tustin Veterinary Clinic
14081 S. Yorba, Suite 103
Tustin, CA 92680
(714) 838-7440

J. Pasco, DVM; L. Mason, DVM
All Creatures Care Cottage
1912 Harbor Blvd.
Costa Mesa, CA 92627
(949) 642-7151

Matt Brady, DVM
Veterinary Housecalls
149 Ave Pelayo
San Clemente, CA 92672
(949) 498-9588

Tom Greek, MS, DVM
Eastlake Animal Hospital
20429 E. Yorba Linda Blvd.
Yorba Linda, CA 92886
(714) 777-1661

Bruce S. Levine, DVM
Bird and Exotic Animal Practice
of Orange County
1142 El Camino Real
Tustin, CA 92780
(714) 734-5922

Scott Weldy, DVM
Serrano Animal and Bird Hospital
21771 Lake Forest Dr., #111
Lake Forest, CA 92630
(949) 855-9744

Southern California and San Diego Region:
619 and 760 Area Codes

David Judy, DVM
Judy Veterinary Clinic
1764 N. 2nd Street
El Cajon, CA 92021
(619) 449-3500

Gary Gallerstein, DVM
Acacia Animal Hospital
1040 N. Broadway
Escondido, CA 92027
(760) 745-8115

Michael Clark, DVM
San Diego Pet Hospital
7368 Broadway
Lemon Grove, CA 91945
(619) 462-6600

Dr. Lindbeck, DVM
Del Norte Plaza Veterinary Clinic
306-F El Norte Parkway
Escondido, CA 92026
(760) 741-8387

Robert Larsson, DVM
University Animal Clinic
7134 University Avenue
La Mesa, CA 91941
(619) 463-9861

Jeff Smith, DVM
L. Pantenburg, DVM
Mission Animal and Bird Hospital
3308 Mission Avenue
Oceanside, CA 92054
(760) 433-3763

Jeffrey Jenkins, DVM
Avian and Exotic Animal Hospital
2317 Hotel Circle S. #C
San Diego, CA 92108
(619) 260-1412

Bob Smart, DVM
Genessee Bird and Pet Clinic
5621 Balboa Avenue
San Diego, CA 92117
(619) 278-1575

Patricia Carter, DVM
Rancho Mesa Animal Hospital
8710 Miramar Road
San Diego, CA 92126
(619) 566-0422

Ronald Ridgeway, DVM and Associates
North Park Veterinary Hospital
4054 Normal Street
San Diego, CA 92103
(619) 299-6020

Rosanne Brown, DVM
Rancho San Diego Animal Hospital
2988 Jamacha Rd
El Cajon, CA 92019
(619) 660-6767

Dr. Thomas H. Boyer
The Pet Hospital of Tierra Santa
6030 Santo Rd., Suite A
San Diego, CA 92124
(619) 569-7777

Mark Handel, DVM
Palomar Animal Hospital
2615 S. Santa Fe Avenue
San Marcos, CA 92069
(760) 727-7622

Harjot Gill, DVM
American Animal Hospital
8135 Mira Mesa Blvd., Suite 2
San Diego, CA 92126
(619) 586-7387

S. Clemmensen, DVM; A. Edmiston
Paradise Valley Road Pet Hospital
8360 Paradise Valley Road
Spring Valley, CA 91977
(619) 475-9770

Northern California: 408, 650, 530, 707, and
916 Area Codes

Dr. Titler, DVM
El Macero Veterinary Clinic
417 Mace Blvd, Suite C
Davis, CA 95616
(530) 756-6764

Victoria Joseph, DVM
Gary Forney, DVM
Bird and Pet Clinic of Roseville
4010 Foothills Blvd.
Roseville, CA 95747
(916) 773-6049

Dr. Van Riper
Elk Grove Veterinary Hospital
8640 Elk Grove Blvd.
Elk Grove, CA 95624
(916) 685-9589

Fredic Frye, DVM
Davis Animal Hospital
741 Plum Lane
Davis, CA 95616
(530) 756-6257

Mark Madden, DVM
Bascomb Animal Hospital
2175 S. Bascomb Avenue
Campbell, CA 95008
(408) 371-5630

Elaine Salinger, DVM
Whyte-Ivie Pet Hospital
1111 El Camino
San Bruno, CA 94066
(650) 583-5039

Small Animal Clinic
Veterinary Medical Teaching Hospital
University of California
Davis, CA 95616
(530) 752-1393

Jerilou Oliphant, DVM
Arcata Animal Hospital
1701 Giuntoli Lane
Arcata, CA 95521
(707) 822-2402

Dr. Chris Sanders
Wildwood Veterinary Hospital
838 Portola Rd.
Portola Valley, CA 94028
(650) 851-9453

NEVADA

Las Vegas

Dominic Cacioppo, DVM
Park Animal Hospital
7380 S. Eastern Ave., Suite 110
Las Vegas, NV 89123
(702) 361-5850

Miguel Gonzalez, DVM
Animal Medical Hospital
1914 East Sahara Ave.
Las Vegas, NV 89104
(702) 457-8043

Lindsay Hucke, DVM
Rancho Animal Clinic
3601 W. Charleston Blvd.
Las Vegas, NV 89102
(702) 870-7654

Robert Kessler, DVM
LakeView Animal Hospital
2939 Lake East Drive
Las Vegas, NV 89117
(702) 254-8200

Brent Mohar, DVM
Decatur Animal Hospital
1117 N. Decatur Blvd.
Las Vegas, NV 89108
(702) 646-3777

Jyl Rubin, DVM
Painted Desert Animal Hospital
4601 N. Rancho Drive
Las Vegas, NV 89018
(702) 645-2543

Joanee Stephanatos, DVM
Animal Kingdom Veterinary Hospital
1325 Vegas Valley Drive
Las Vegas, NV 89109
(702) 735-7184

Nicholas St. Erne, DVM
PETSMART Veterinary Clinic
171 North Nellis Blvd.
Las Vegas, NV 8910
(702) 459-6880

George Stoecklin, DVM
North Las Vegas Animal Hospital
2437 E. Cheyenne Ave.
North Las Vegas, NV 89030
(702) 642-5353

William Taylor, DVM
Mt. Vista Animal Hospital
4675 E. Flamingo Road
Las Vegas, NV 89121
(702) 458-8808

Stephen Whipple
Animal House Veterinary Hospital
2255 S. Nellis Blvd.
Las Vegas, NV 89104
(702) 431-6965

Carol Whitmoyer, DVM
Boulder Animal Hospital
1252 Wyoming Street
Boulder City, NV 89005
(702) 293-3744

Reno/Carson City

Janet Maker, DVM
Pyramid Veterinary Hospital
2351 Pyramid Way, Suites 17 and 18
Sparks, NV 89431
(775) 356-8323

Mark Ditsworth
Kings Row Pet Hospital
3653 Kings Row
Reno, NV 89503
(775) 747-1211

Dr. Baker
Baring Boulevard Veterinary Hospital
700 Baring Boulevard
Sparks, NV 89434
(775) 358-6880

UTAH

St. George

Bruce Jacobson, DVM
775 South Main Street
St. George, UT 84770
(435) 673-9673

Salt Lake City

Martin Orr, DVM
Bird and Exotic Pet Hospital
1050 E. Fort Union Blvd.
Midvale, UT 84047
(801) 565-1263